

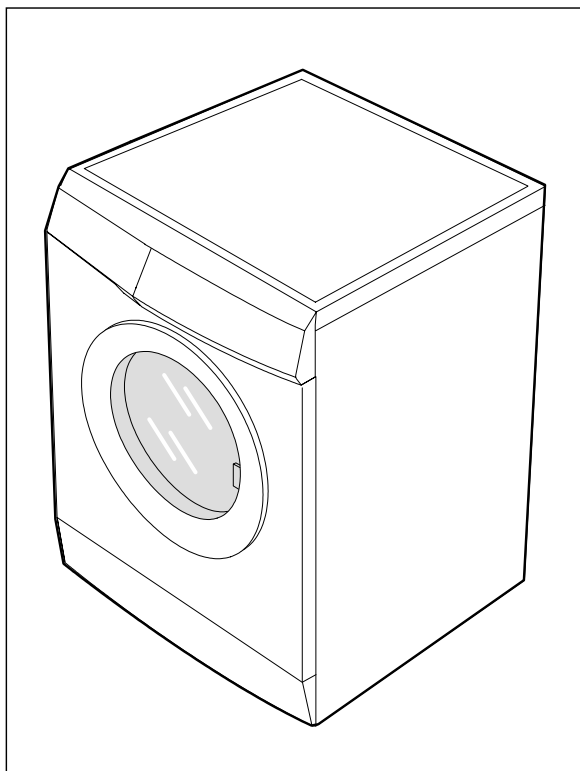


WASHING MACHINE

F843GW/YLP

ERVICE Manual

WASHING MACHINE



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Caution for the safety during servicing

1. Do not allow the customer to repair the product.

⚠ The person may be injured or the product life may be shortened.

2. Execute A/S after unplugging the power supply unit.

⚠ Be care of the electric shock.

3. Do not plug several plugs in the same outlet.

⚠ It may cause the fire due to overheat.

4. Check the damage, pressing or burning of the power plug or outlet.

⚠ Replace it promptly if it has problem.(may cause the electric shock or fire)

5. Do not clean the main body with the water.

⚠ It may cause the electric shock and fire and shorten the product life)

6. The wiring of the harness shall be free from the moisture and tightened during serving.

⚠ It shall not be deviated by certain impact.

7. Remove any dust or filth on the housing section,wiring section,connection section during servicing.

⚠ Protect the cause of the fire such as the tracking,and etc.

8. Check any mark of the moisture on the electrical parts, harness section and etc.

⚠ Replace the parts or remove the moisture.

9. Check the assembly status of the parts after servicing.

⚠ Maintain the status before servicing.

10. Pull out the power cord with holding the plug.

⚠ Be care of the electric shock and fire when the cord is damaged.

11. Unplug the power plug from the outlet when the wash machine is not used.

⚠ Be care of the electric shock and fire due to the strike of the lightening.

12. Do not use or store the spray or flammable materials(including gasoline,alcohol and etc.) around the wash machine.

⚠ Be care of the explosion or fire due to the electric spark.

13. Do not put the bowl of water or wet laundry on the wash machine.

⚠ If the water is penetrated to the wash machine, this may cause the electric shock or fire.

14. Do not install the wash machine in the place where the snow or rain falls.

⚠ It may cause the electric shock and fire and shorten the product life.

15. Do not push the control buttons with the awl,pin, or sharp materials.

⚠ It may the electric shock and trouble.

16. Check the wash machine is leveled horizontally and installed properly on the floor.

⚠ The vibration may shorten the product life.

17. Joint the wire by the connector correctly.

⚠ When the wire is jointed by the tape, this may cause the fire due to the tracking.

18. When the wash machine is to be laid for the service, put the pad on the floor and lay the product at side slowly.

⚠ If the wash machine is laid front, the relay may be damaged by the tub.

19. When the wash-heater is replaced, check it is inserted in the bracket-heater and screw the nut.

⚠ If the wash--is not inserted in the bracket-heater properly, this may cause the noise and leakage since it is contacted to the drum.

7. General Error Function

1. An occurrence of an Error will make a sound of error melody for 5sec and continuously show one of the Error Displays from the following errors. (But, Fault Check Led will flash for 0.5sec.)
2. All of the steering parts will be off at that time until that error was released.

3. Water Supply Error

- If there is no higher change in water frequency than 100Hz for 2 minutes during the initial time of water supply and if water level doesn't reach the preset level in 20 minutes, this error will occur.
This error will be released using Start/Pause button, which performs the initial condition of operation.
- Display : "4E"

4. Water Drain Error

- If water level frequency is still lower than the reset level frequency (24.50kHz) in 10 minutes after starting of water drain, this error will occur.
This error will be released using Start/Pause button, which performs the initial condition of operation.
- Display : "5E"

5. Over Flow Error

- If an abnormal water level frequency is sensed (for occurrence of Over Flow :20.50kHz), Auto Power Off may release this error and continuously progress water drain until the frequency reached 24.50kHz.
- If Over Flow is also sensed even after the following check of water level frequency indicating that error, it functions to progress water drain.
- Display : "OE"

6. Door Open Error

- This error will be released by opening Door.
- Display : "dE" in 2-digit, "door" in 4-digit

7. Unbalance Error

- This error will be released by turning off Power S/W, which performs the initial condition of Power-On.
- DISPLAY : " UE"

8. Water Heater Error

- This error will be released by turning off Power S/W.
- Display : " HE"(Over Heat),
- Display : "6E", indicating no operation of HE.

9. Pressure S/W (Single Part Trouble) Error

※ Frequency signals(kHz) generated by water level S/W

Water Level	Low	High
Abnormal Frequency	30.00 KHz	15.00 KHz

- If the above frequency signals are displayed longer than 5sec, it indicates Pressure S/W Error.
- Drain water for 3 minutes for that Error, and turn OFF water drain pump. Pressure S/W Error display " IE" will be shown. .

10. Abnormal Water Temperature ERROR

- Water drain begins if abnormal water temperature is sensed at the initial time of water supply. If the frequency higher than 25.24KHz is sensed, water will be drained by force.
- Display : "CE"
- This error will be released by turning off Power S/W.

7. General Error Function

11. Natural Drain/Water Leak Error

- If more than 4 times of water supply and safe water level of Heater are sensed for each course, this error will occur.
- Display : "LE"
- This error will be released by turning off Power S/W.

12. Tacho Error

- If Motor Tacho is abnormal, this error will occur.
- If Tacho signals are inputted less than 2 for 2sec after Motor started, this error will occur.
- Display : "3E"
- This error will be released by turning off Power S/W.

13. Motor TRIAC Short Error

- If Tacho signals are inputted more than 300 every 1sec in the operational interval less than 90RPM, this error will occur.
Turn off Power S/W at that time.
- Display : "bE"
- This error will be released by turning off Power S/W.

14. Thermistor Abnormal Error

- If Thermistor circuit is abnormal, this error will occur.
- If Thermistor is lower than 0.2V or higher than 4.5V, this error will occur.
- Display : "tE"
- This error will be released by turning off Power S/W.

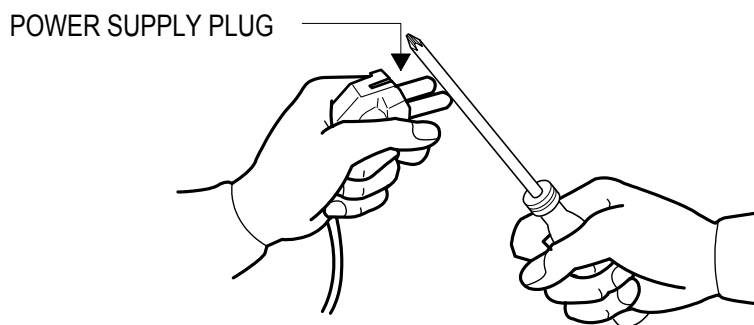
8. Trouble Diagnosis

- As the micom wash machine is configured of the complicate structure, there might be the service call. Below information is prepared for exact trouble diagnosis and suitable repair guide.

Caution for the Repair and Replacement

Please follow below instruction for the trouble diagnosis and parts replacement.

- 1) As some electronic components are damaged by the charged static electricity from the resin part of wash machine or the human body, prepare the human body earth or remove the potential difference of the human body and wash machine by contacting the power supply plug when the work contacting to PCB is executed.



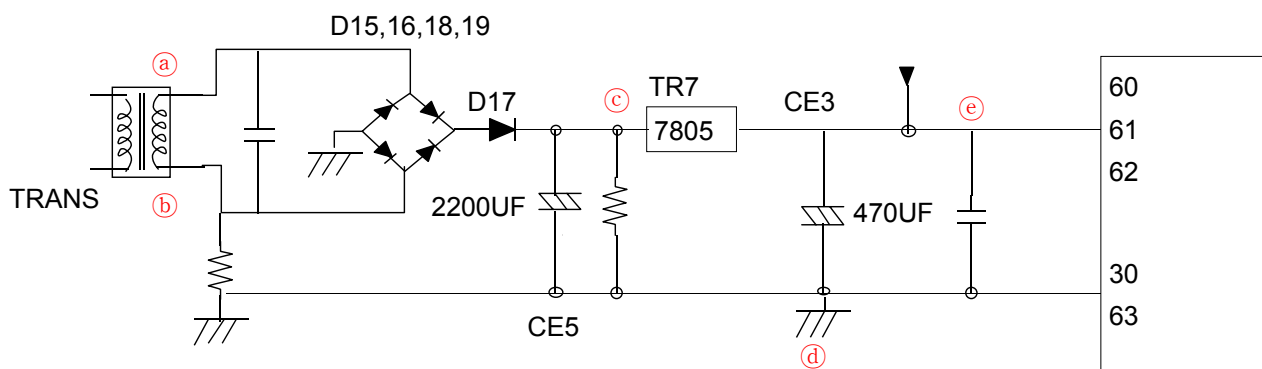
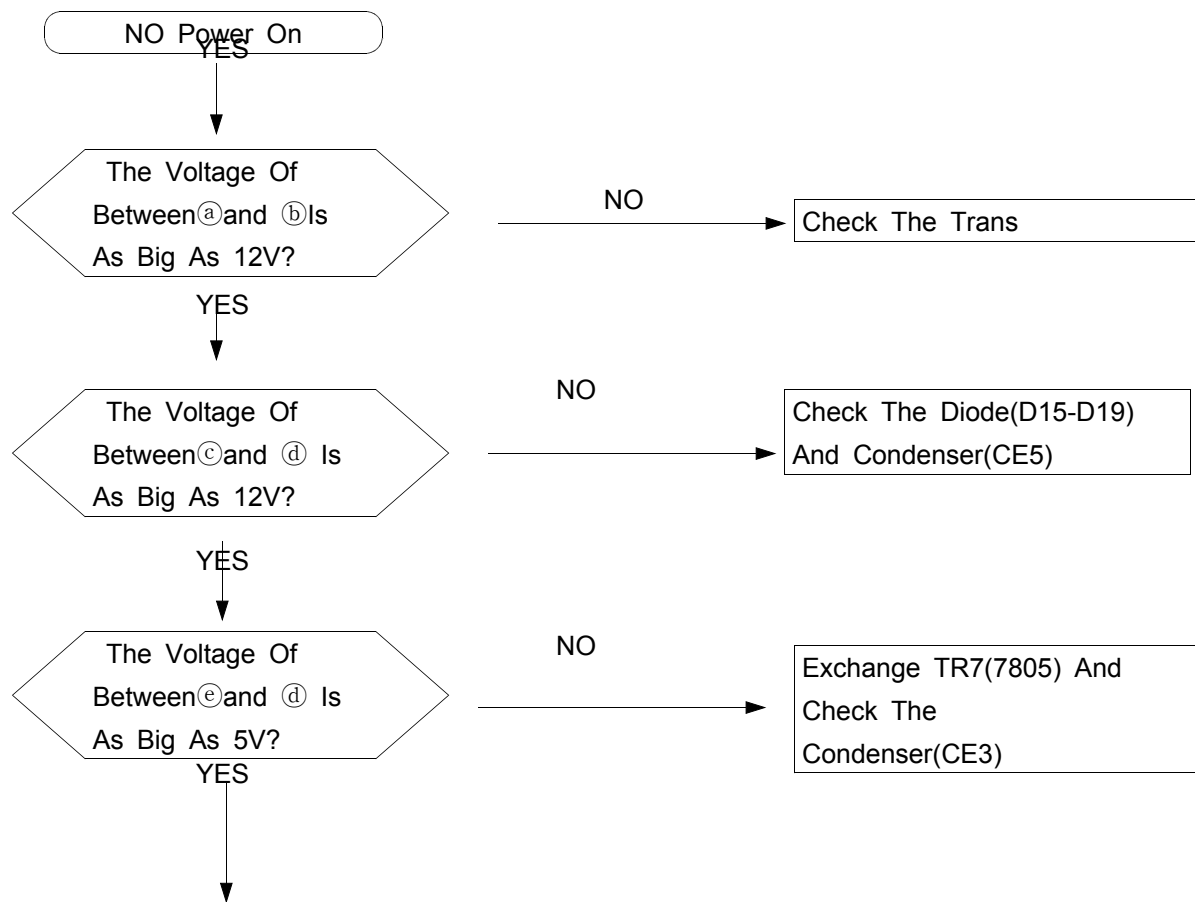
- 2) Since AC220~240V is applied to the triac T1 and T2 on P.C.B, the electric shock may occur by touching and be careful that the strong and weak electricity are mixed.
- 3) As the P.C.B assembly is designed for no trouble, do not replace the P.C.B assembly by the wrong diagnosis and follow the procedure of the trouble diagnosis when the micom is not operated normally.

8-1. Trouble Diagnosis

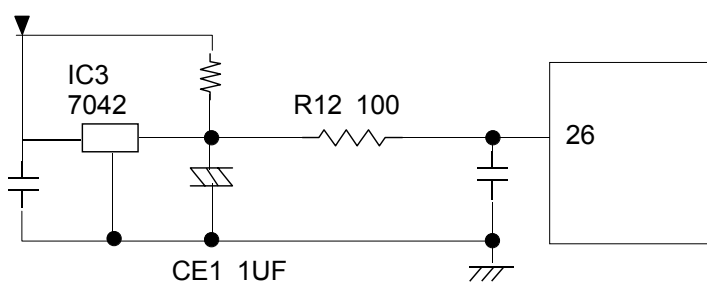
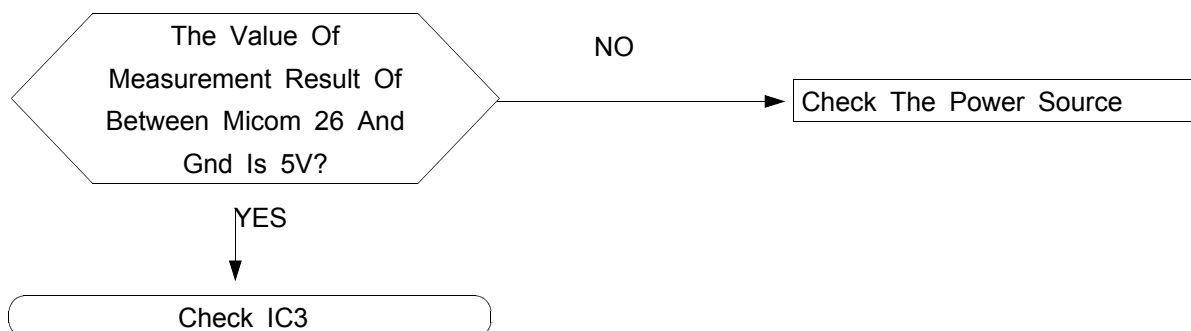
No	Item	Cause and treatment
1	The power is not supplied	<ul style="list-style-type: none"> - Is the PCB connector connected well? - Is the voltage normal? - Is the power supply plug connected well? - Is the noise filter connected well? - Is the secondary output of the power supply transformation normal? - Is the fuse disconnected? (option) • If above points are not found, the PCB assembly is out of order. Replace it.
2	The water is not supplied.	<ul style="list-style-type: none"> - Is the knob open? - Did you push START/PAUSE button after selecting the course? - Is the water supply valve connected well? - Is the winding of the water supply valve continuous? - Is the connection and operation of the pressure switch normal? • If above points are not found, the PCB assembly is out of order. Replace it.
3	The wash does not start though the water supply is stopped.	<ul style="list-style-type: none"> - Is the connection and operation of the pressure switch normal? - Is the pressure switch hose damaged so that the air is leaked? - Is the pressure switch hose bent? - Check the operation of the water level switch. • If above points are not found, the PCB assembly is out of order. Replace it.
4	The drum does not rotate during washing.	<ul style="list-style-type: none"> - Is the belt connected well? - Is the winding of the motor continuous? (Rotor winding, stator winding, generator) - Is the motor protector normal? • If above points are not found, the PCB assembly is out of order. Replace it.
5	The drum rotates by one direction during washing. (The drum rotates to one direction for SPIN.)	<ul style="list-style-type: none"> - The PCB assembly is out of order. Replace it. (Inversion relay open trouble)
6	Drainage problem.	<ul style="list-style-type: none"> - Is the drainage hose bent? - Is the winding of the drainage pump continuous? - Is the drain filter clogged by the waste? • If above points are not found, the PCB assembly is out of order. Replace it.
7	Dehydration problem.	<ul style="list-style-type: none"> - The unbalance is detected. - Put in the laundry uniformly and start again.
8	Abnormal noise during SPIN.	<ul style="list-style-type: none"> - Is the pulley nut loosen? - Is the transport safety device removed? - Is the product installed on the level and stable place? (Little noise may be generated during the high-speed SPIN.)
9	Leak breaker or current/leak breaker is down during washing.	<p><When the leak breaker and current breaker is installed separately></p> <ul style="list-style-type: none"> - When the leak breaker is down, check and make the earth of the outlet. - When the current is down, the current is leaked. <p><Is the breaker down when the leak/current breaker is combined?></p> <ul style="list-style-type: none"> - Check the rated capacity of the current and leak breaker. The current breaker may be down due to the lack of the current when the wash machine and other apparatus are used. In this case, execute the cold water wash to check whether the current capacity is lack.
10	The heating is not executed.	<ul style="list-style-type: none"> - Is the wash heater terminal unplugged? - Is the wash heater normal? - If above points are not found, the PCB assembly is out of order. Replace it.

8-2 . Problem Checking And Method Of PCB

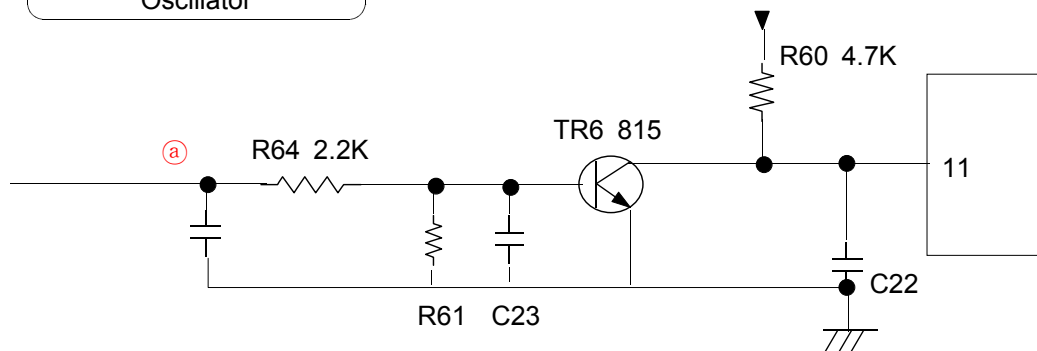
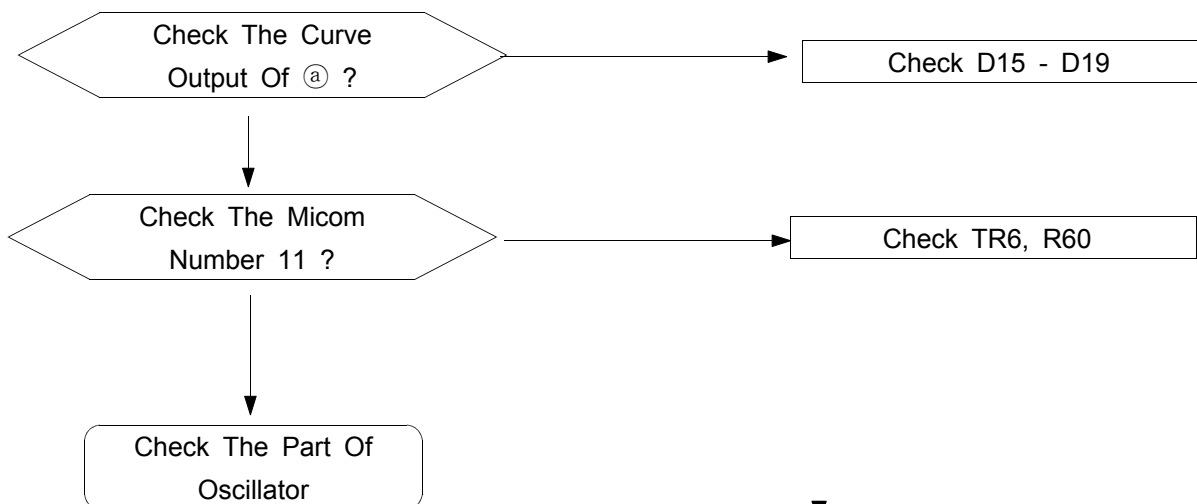
8-2-1 The Part Of Power Source



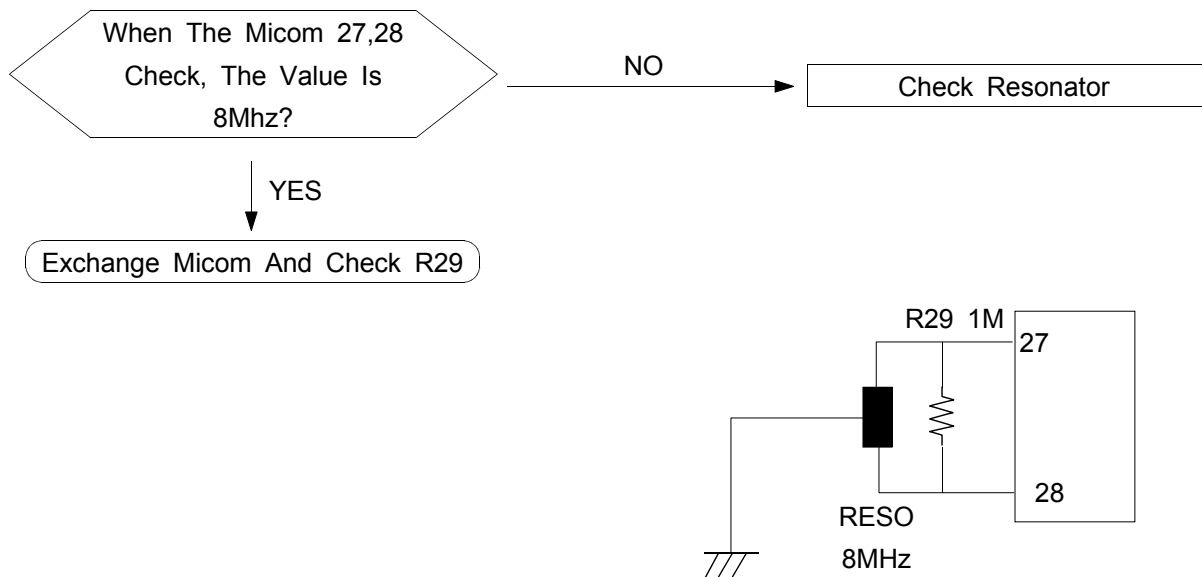
8-2-2. Reset Part



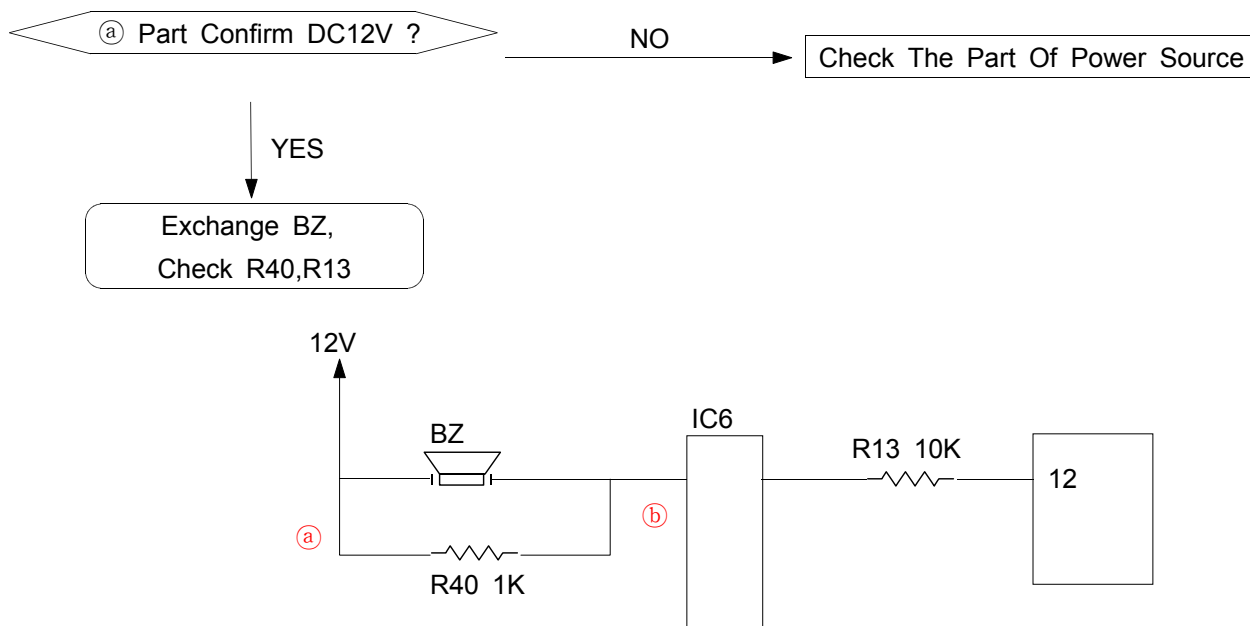
8-2-3. Interrupt Part



8-2-4. Checking The Part Of An Oscillator



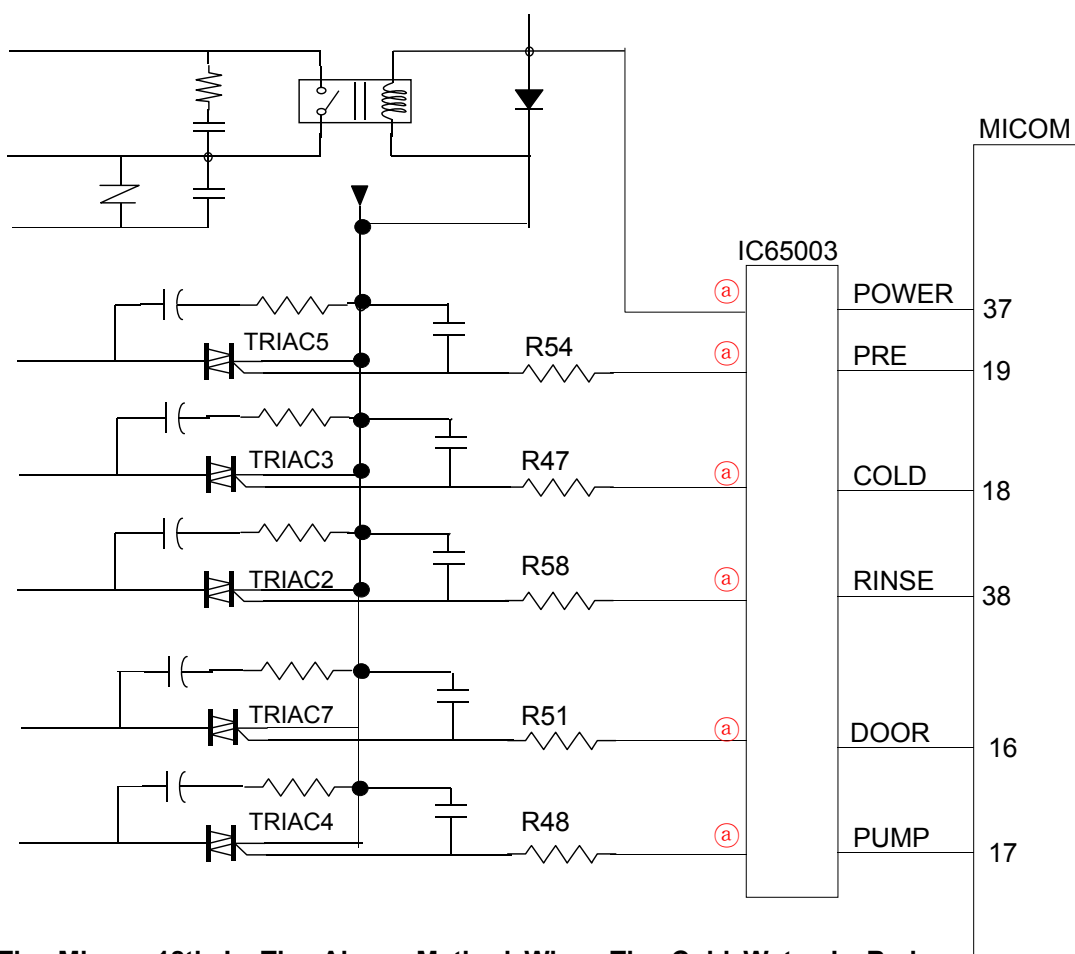
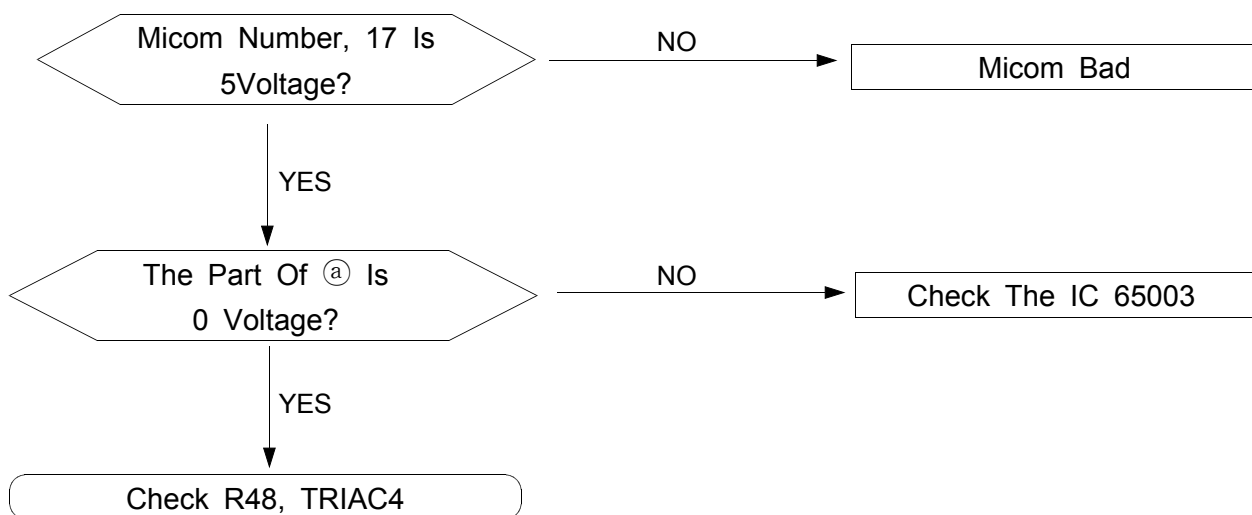
8-2-5. Check The Part Of Buzzer



8-2-6. Driving Part Checking

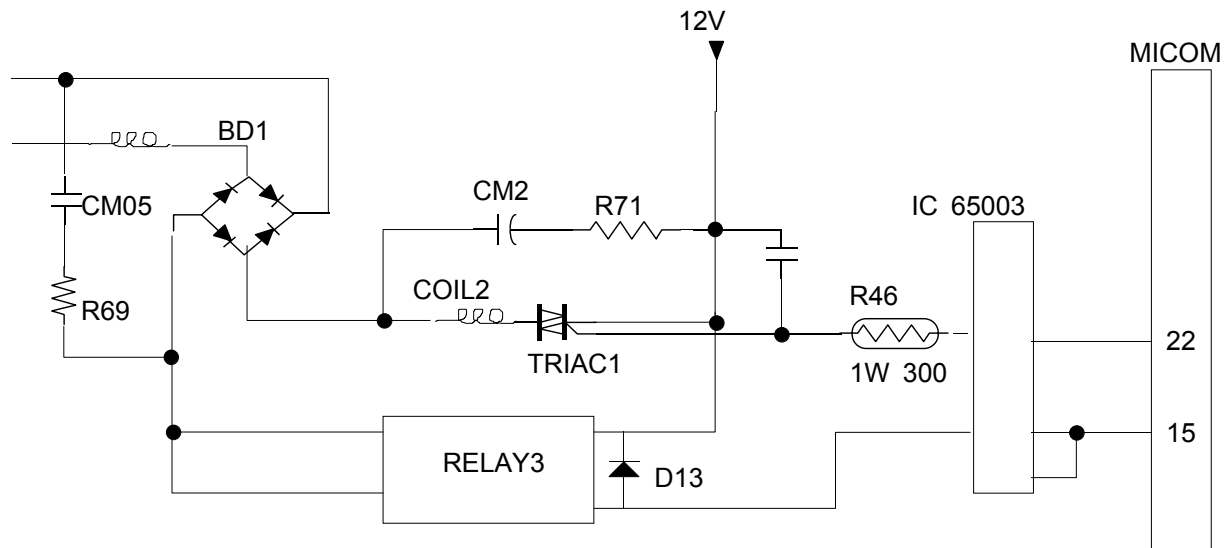
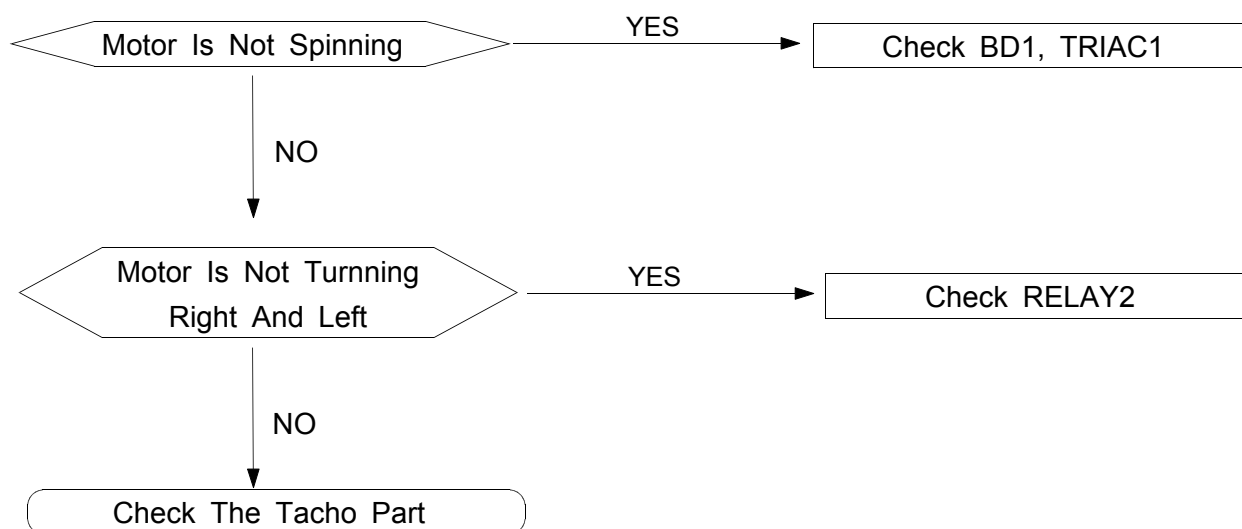
- ◆ Confirm The Output Of DC5V, When The Every Part Of Micom Number Check, According To The Some Problem Condition

ex) When The Drain Is Not Operating But Pump Motor Is Operating, Check The 5Voltage Of Micom

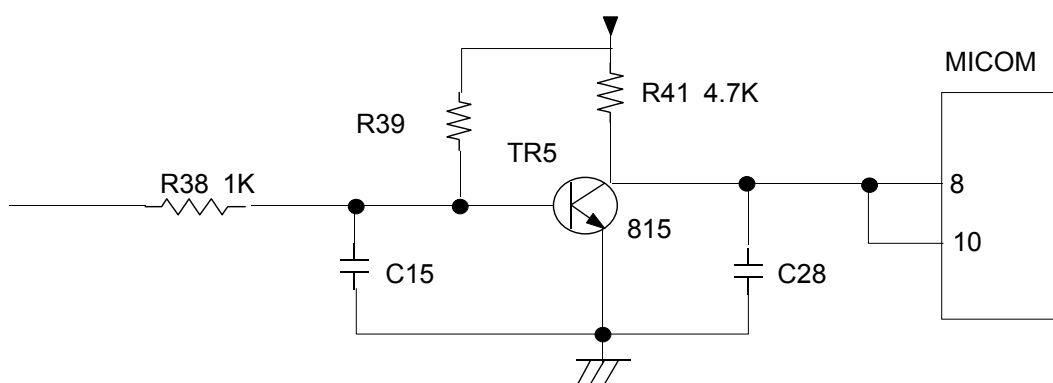
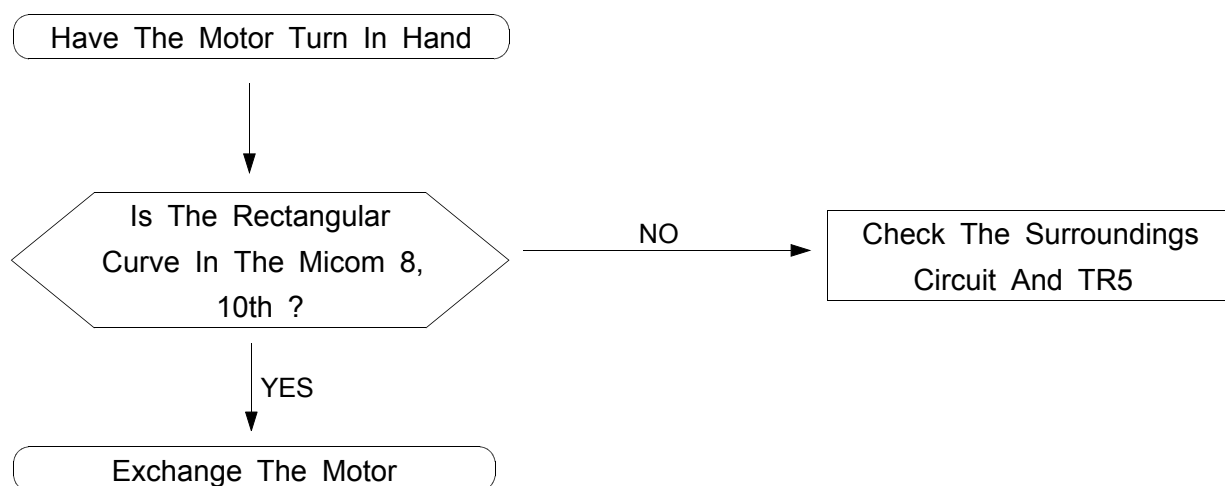


※ Check The Micom 18th In The Above Method When The Cold Water Is Bad

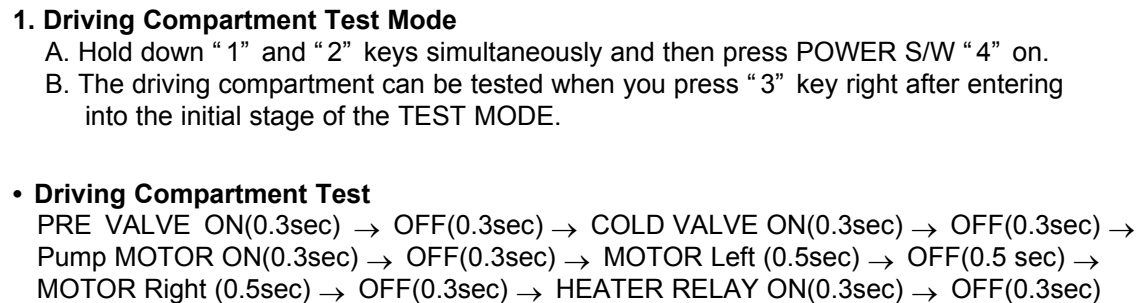
8-2-7. Confirm The Driving Part Of Motor



8-2-8. Checking The Tacho Part

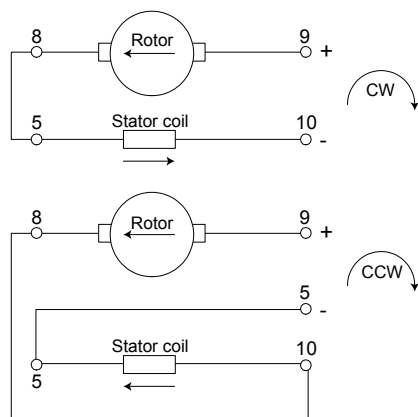


9. Test Mode

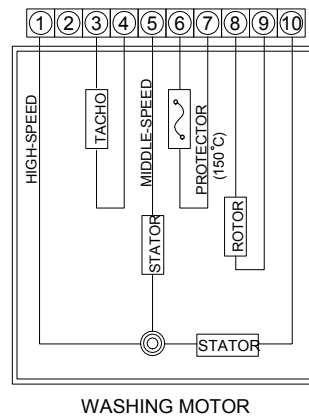


10. Designation of Main Components

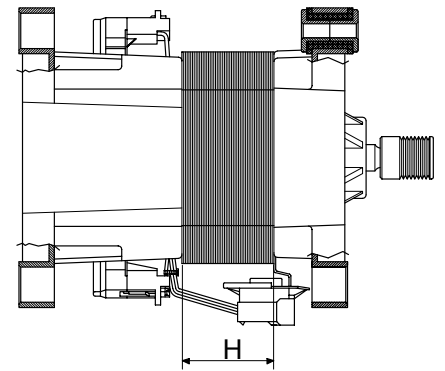
10-1 Normal / Reverse Revolution of Motor and R. P. M. Control



<Figure1>



<Figure2>

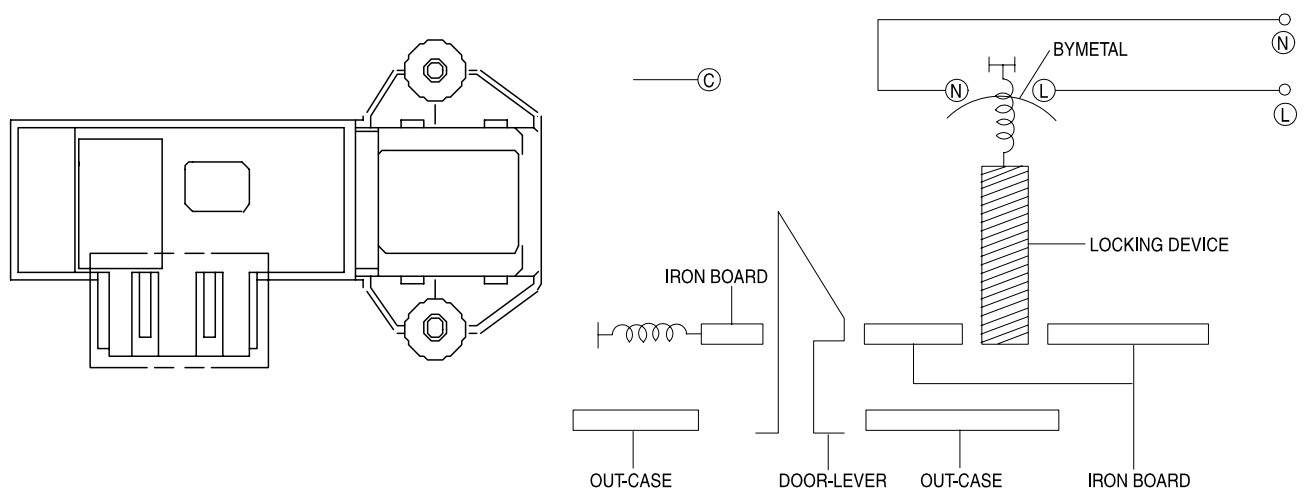


<Figure3>

($\pm 7\%$)	STATOR(5.10)	STATOR(5.1)	ROTOR(8.9)	TACHO(3.4)	PROTECTOR(6.7)	"H"(mm)	Code-No.	Remark
Resistance value	2.07 Ω	0.90 Ω	2.35 Ω	34.3 Ω	0	45	DC31-00002E	
Rated value	220~240V/50Hz							

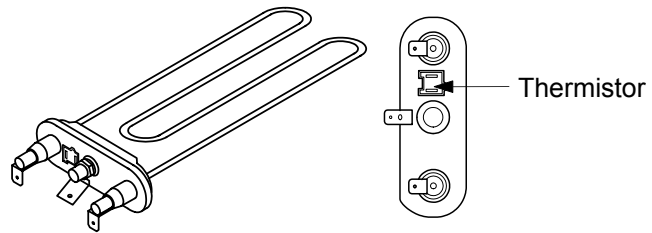
10-2 Door safety Device (F1213J/F1013J/F813J)

When Door is closed, door stay closed. if "set" is operated, power supplied to (N), (L) wires have bymetal keep the door closed, and electronal power flows between (L) and (C) make it operate.



10-3 Heater

- 1) Capacity : AC 230V/1900W
- 2) Location : Bottom of TUB
- 3) Function : Raise the water temperature supplied at the wash process.
- 4) Resistance value : 23~29
- 5) Thermal Fuse : 128°C



10-4 Detergent tub and water supply value

A Detergent tub is composed of housing and 3 drawers . supplied water flows into the 3 drawer-detergent tub by way of classifier at each washing process.

three open drainage way with detergent and supplied water by way of connector located under the housing flows into washing tub.

the water supply valve is composed of a hot water valve(1 way) and a cold water valve(2way) and water flow per min in the valve is below.

	Hot water valve(1 way) (OPTION)	Cold water valve(2 way)	
		V1	V2
water flow(L/min)	10L	10L	5L
resistance value	4.3kΩ	4.2kΩ	4.2kΩ
power consumption	AC 220v ~ 240V 50/60Hz		
usable water pressure	0.5 ~ 8 kg/cm ²		

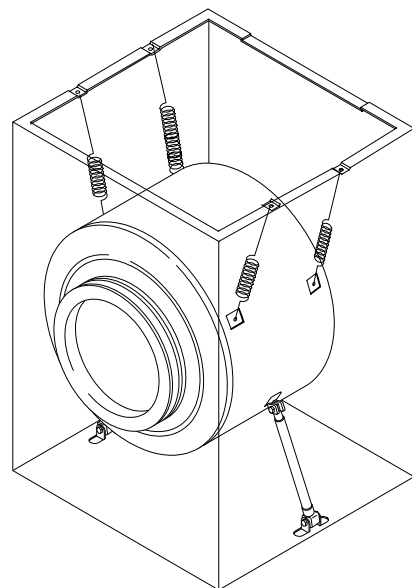
10-5 Shock absorber and buffer spring

This wash machine is equipped with 2 Shock absorbers with same capacity and with 4 buffer springs. 2 Shock absorber are placed under the tub and outside case , 4 buffer springs are placed on the right and left of the upper side of outside case.

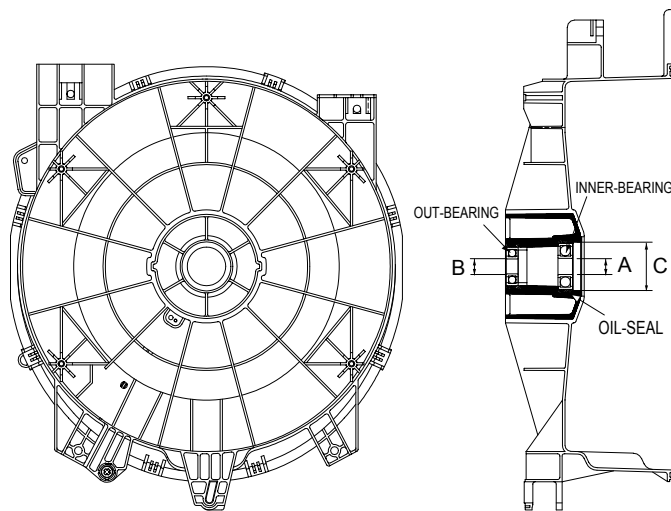
Shock absorber function: during wash, dehydration absorb the shock.

buffer spring: buffering the vibration

device	capacity of Shock absorber
Shock absorber	8±2kg



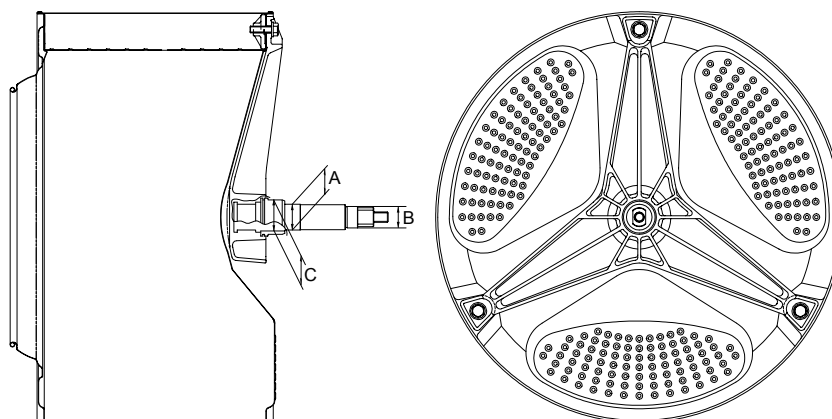
10-6 ASSY-TUB BACK



(unit : mm)

TYPE	INNER-BEARING(A)	OUT-BEARING(B)	OIL-SEAL(C)	Assy-Housing Bearing(D)	Assy-Tub Back	REMARK
I	ø 20	ø 17	ø 24.3	DC97-00125D	DC97-00214K	

10-7 ASSY- DRUM

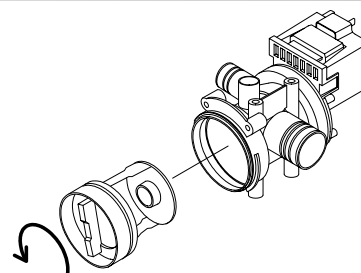


(unit : mm)

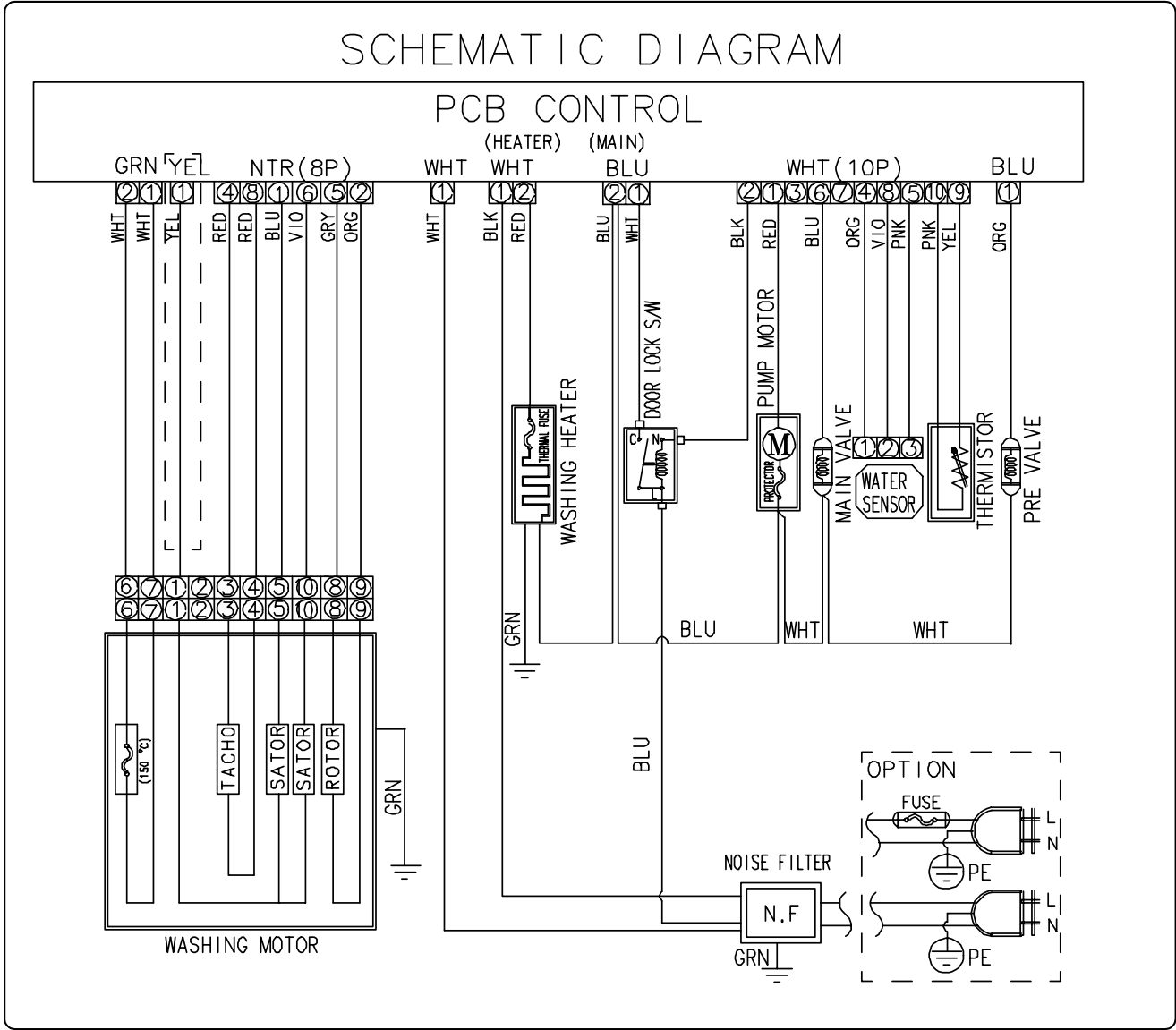
TYPE	(A)	(B)	(C)	CODE-NO.	REMARK
I	ø 20	ø 17	ø 25	DC97-01463J	Lifter type

10-8 ASSY-PUMP DRAIN

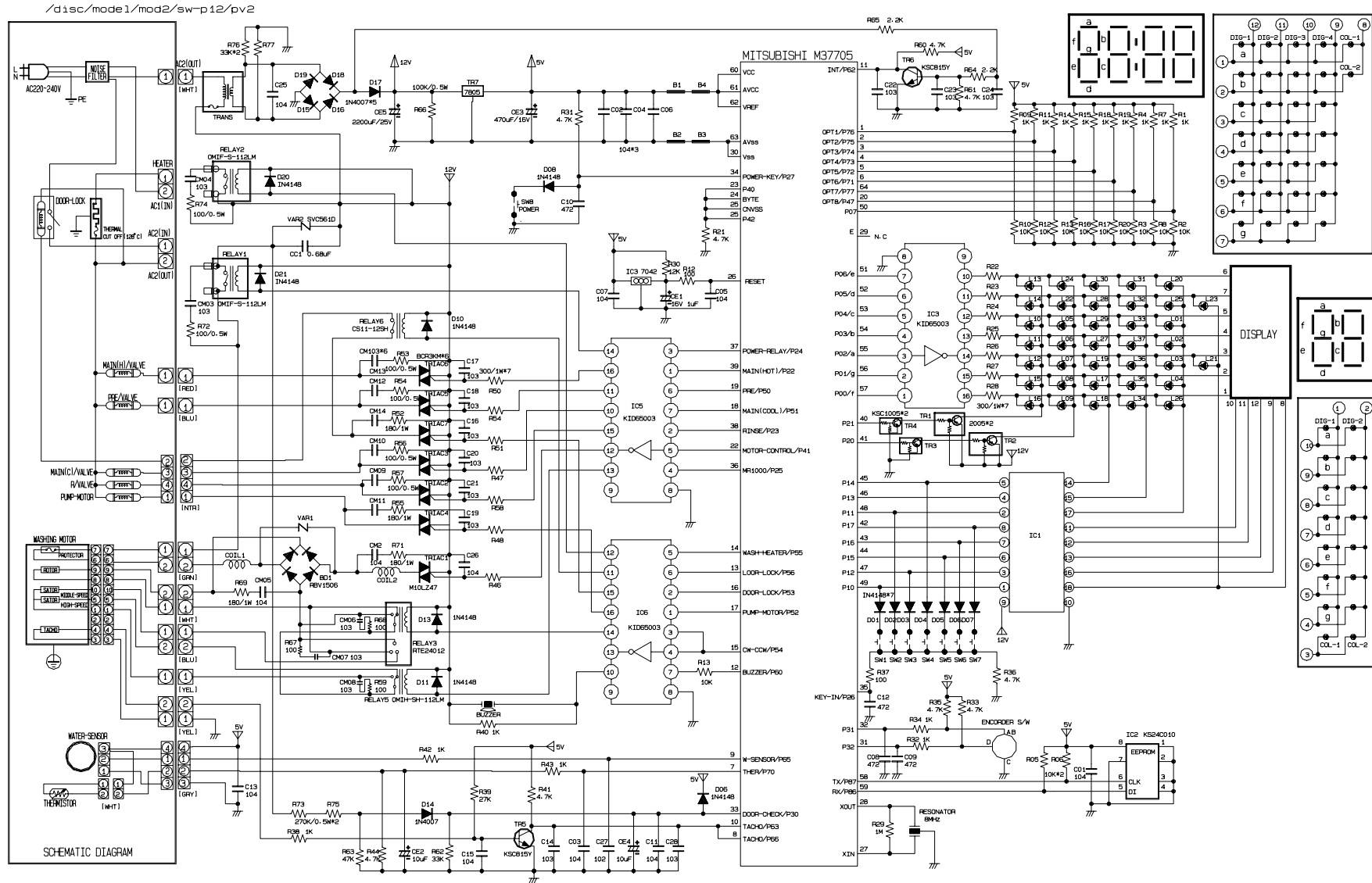
- 1) Capacity : AC 230V 34W
- 2) Location : Front bottom(R)
- 3) Resistance : 160Ω ~ 190Ω



11. PCB Schematic Diagram



11-1. PCB CIRCUIT DIAGRAM This Document can not be used without Samsung's authorization.



12. Setting up a wash machine.

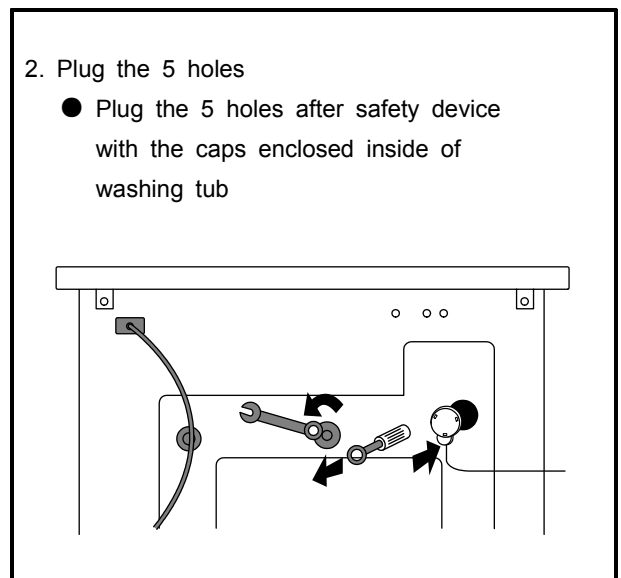
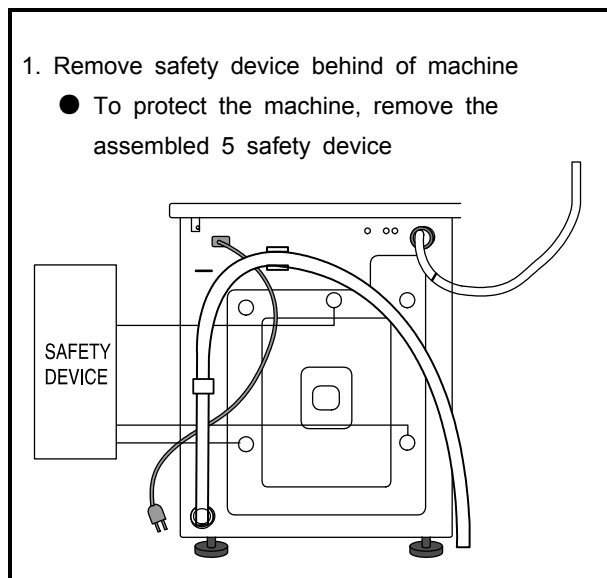
12-1 Remove the safety device for carriage

- 1) Remove 5 safety device volts with a enclosed wrench for safety device remove
- 2) Plug the 5 holes with 5 caps after removing the 5 safety device volts.

* Take care of 5 safety device volts and a wrench , you need these when you move wash machine safely.

Caution

You must remove safety device before use , if not, you have much vibration or much load can be impacted on the machine.



12-2 Install the wash machine on the leveled place.

With the water level adjustment device, adjust the 4 adjustment legs to install the machine leveled on the right, left, front and rear side. machine's install condition and size is following.

12-2-1 Initial assembled condition (ass'y cover top)

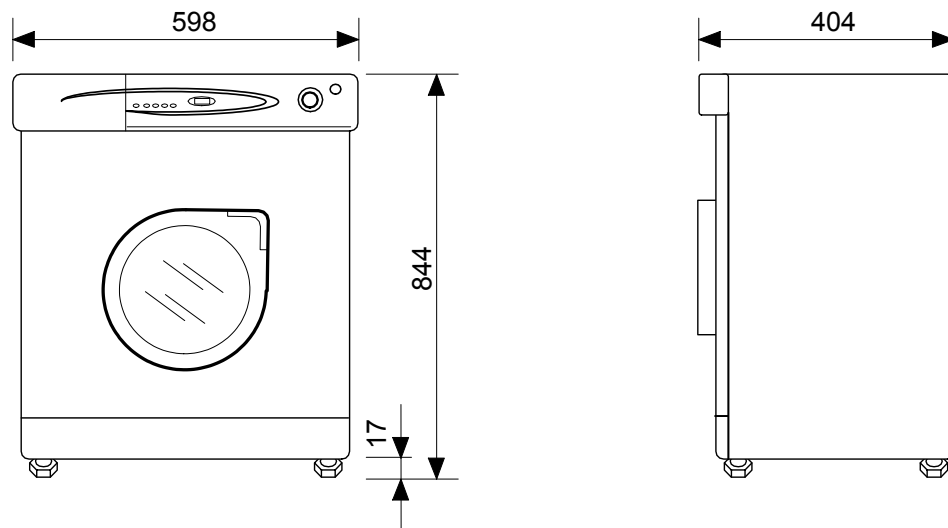
- 1) Adjustment legs are stick to the bottom of the machine, when the machine comes out of factory. this condition is ideal for vibration and noise.
- 2) When you install the machine initially or move the machine in use, unscrew the 4 legs to the left and place the machine level and spin the locking nuts and tighten it strongly.



12. Setting up a wash machine.

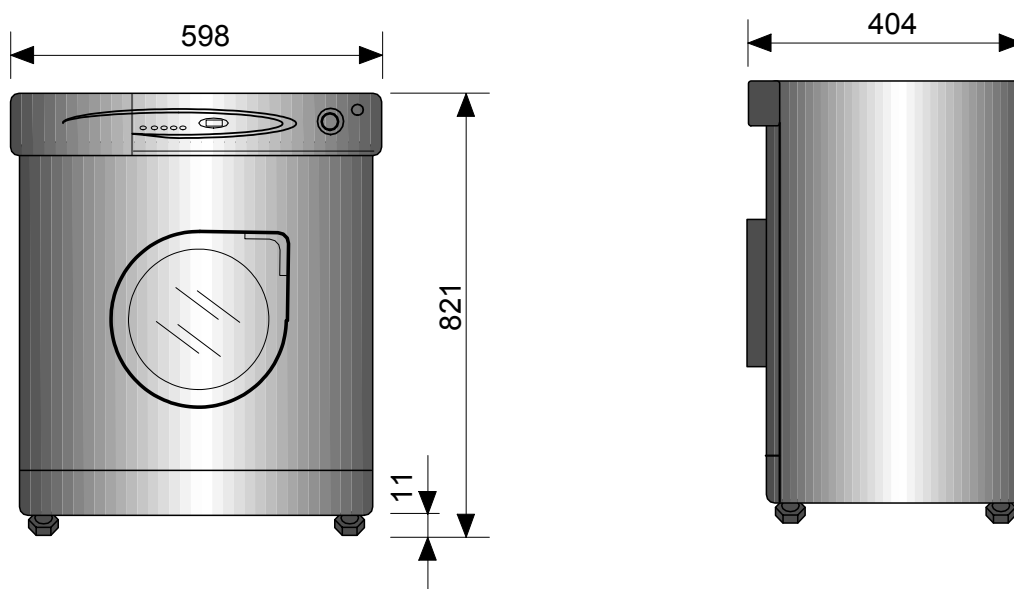
- 3) Even though adjustment legs came out all the way, if machine is not leveled, prop up the machine with the wood or brick to make it even.

(Do not use fragile material or slippery material such as laminated paper)



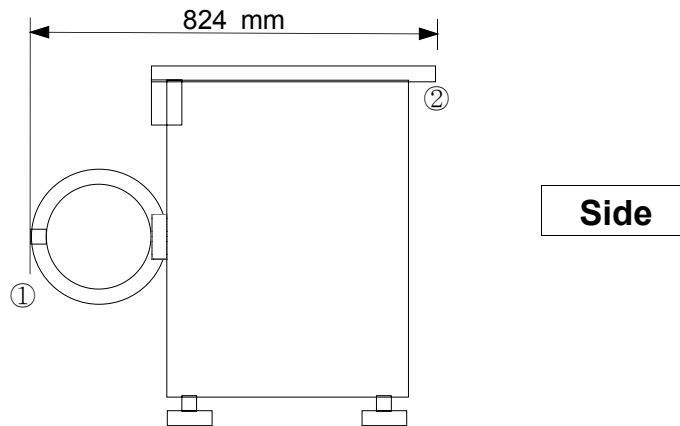
12-2-2 The condition of setting up sink(Disassembled Ass'y- Cover Top)

- 1) Spin the adjustment leg to the left and remove them from the front and rear side of the machine.
- 2) Remove the 4 locking nuts from adjustment legs, and put only adjustment legs back where those were.
- 3) After removing the fixing screws(each on right, left side) from the machine which is behind ass'y- cover top, disassemble the assy-cover top.
- 4) Install the sink.

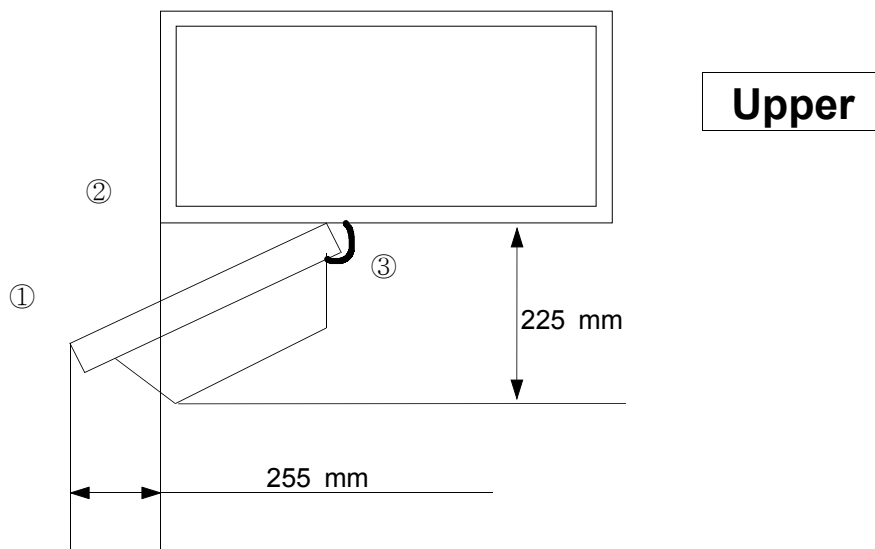


12. Setting up a wash machine.

12-3. Door Opening Dimension(Slim Model)



- (When The Door Vertically Open)
The distance between door① and the rear side② is 824mm



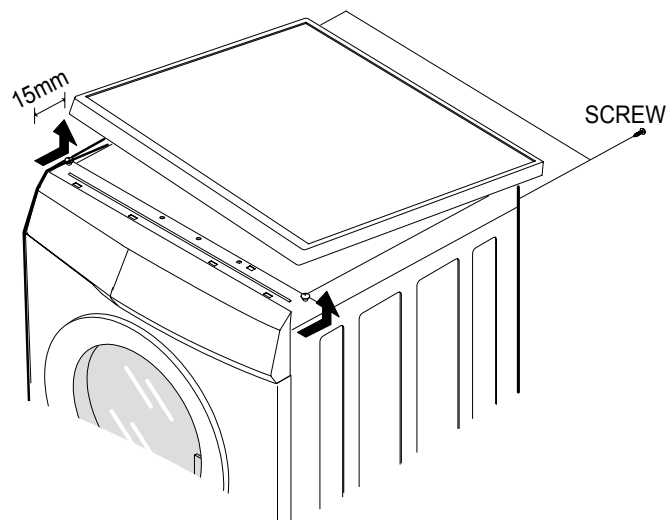
- (When the door extremely open ※)
The distance between the door edge(①) and the left side of washing machine(②) is 255mm

※ Maximum door angle(③) is 170°

13. Assemble and Disassemble

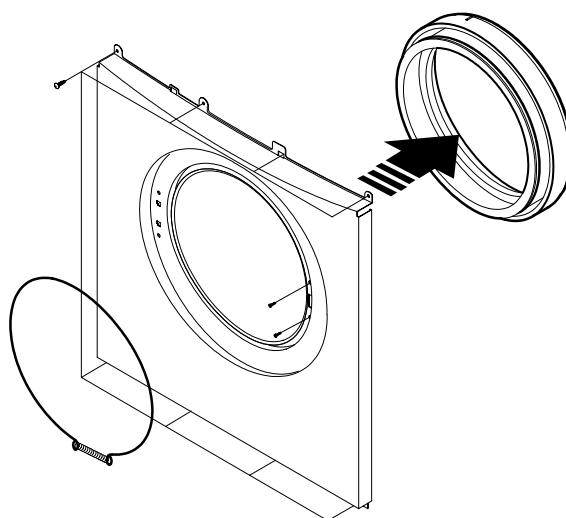
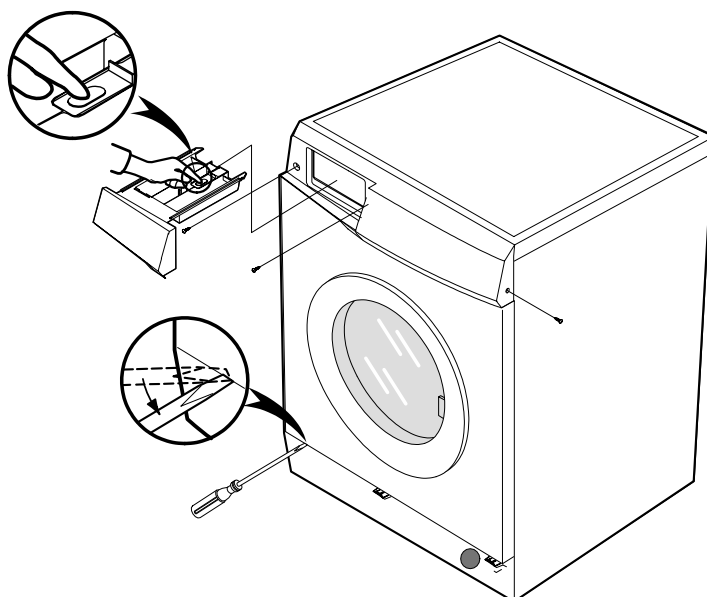
1. ASS'Y-COVER TOP

- 1) Remove two screws fixing the top-cover on back side.
- 2) Push the top-cover back about 15mm and pull it up.
- 3) It's possible to exchange and service Assy-Panel (PCB), the pressure-sensor, the noise-filter, the water valve and trans(option).



2. FRAME FRONT

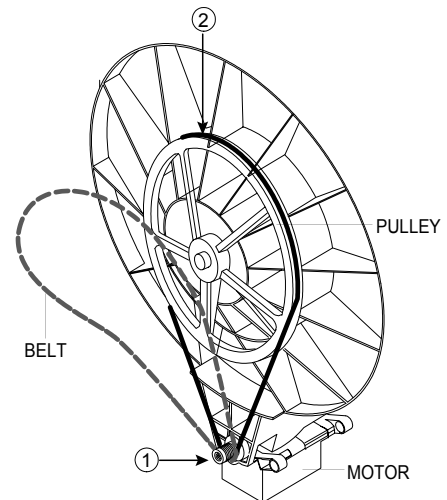
- 1) Remove the top-cover and the ass'y drawer.
- 2) Remove two screws fixing the control-panel on front side and the screw on right side.
- 3) Remove the cover-front(L) by using the (-)driver.
- 4) Part the diaphragm and the wire diaphragm away from the frame-front.
- 5) Remove the eight screws fixing the frame-front.
- 6) It's possible to exchange and service the heater, the pump, the shock-absorber and the door lock s/w.



13. Assemble and Disassemble

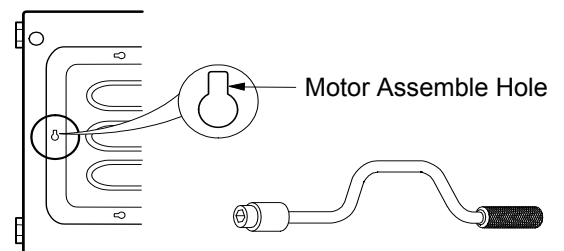
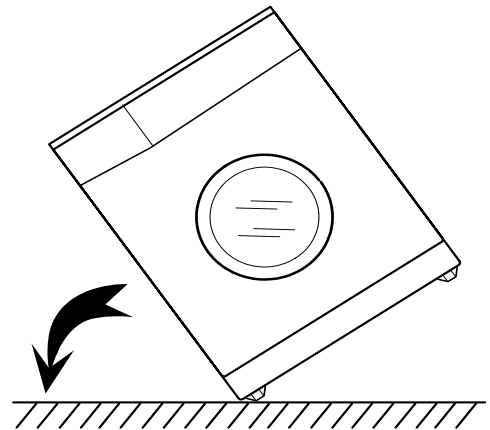
3. BELT

- 1) Remove the top-cover.
- 2) Disassemble and assemble the belt.
- 3) Check the belt is located at center of the motor-pulley.
<When assemble the belt>
Hook the belt on the motor pulley 1) and place it around the pulley 2).



4. MOTOR

- 1) Lay down the washer on left side.
- 2) Remove the wire housing from the motor.
- 3) Remove the bolt fixing the motor with the box drive on back side.
- 4) Remove the motor.



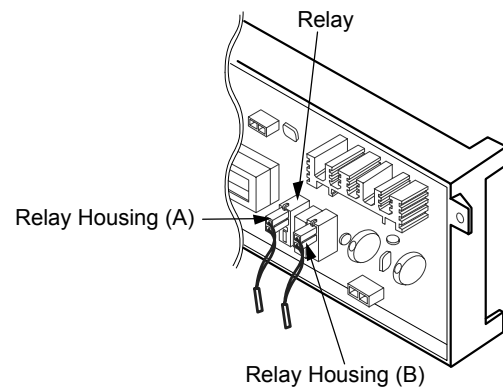
5. How to Assemble the RELAY Housing.

<CAUTION>

Insert the Relay Housing to the Relays on the opposite direction each other.

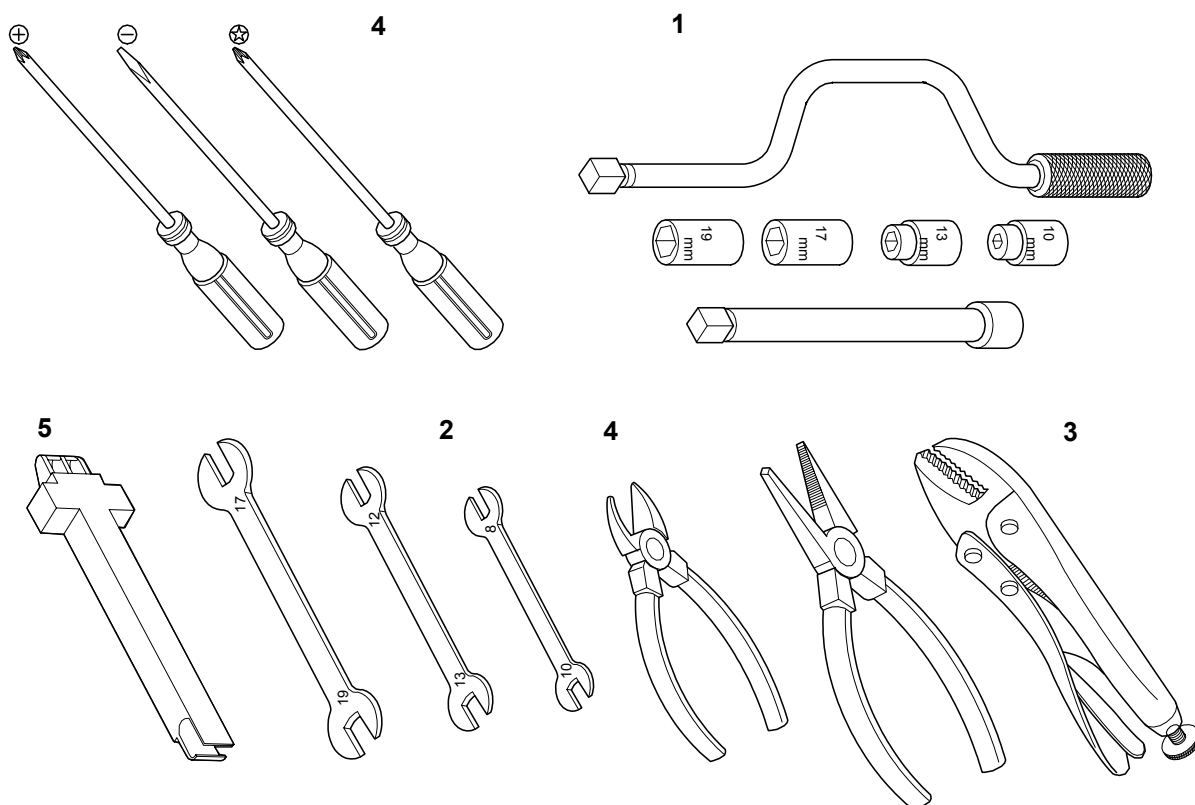
[Relay Housing Color]

A	B
WHITE	BLUE

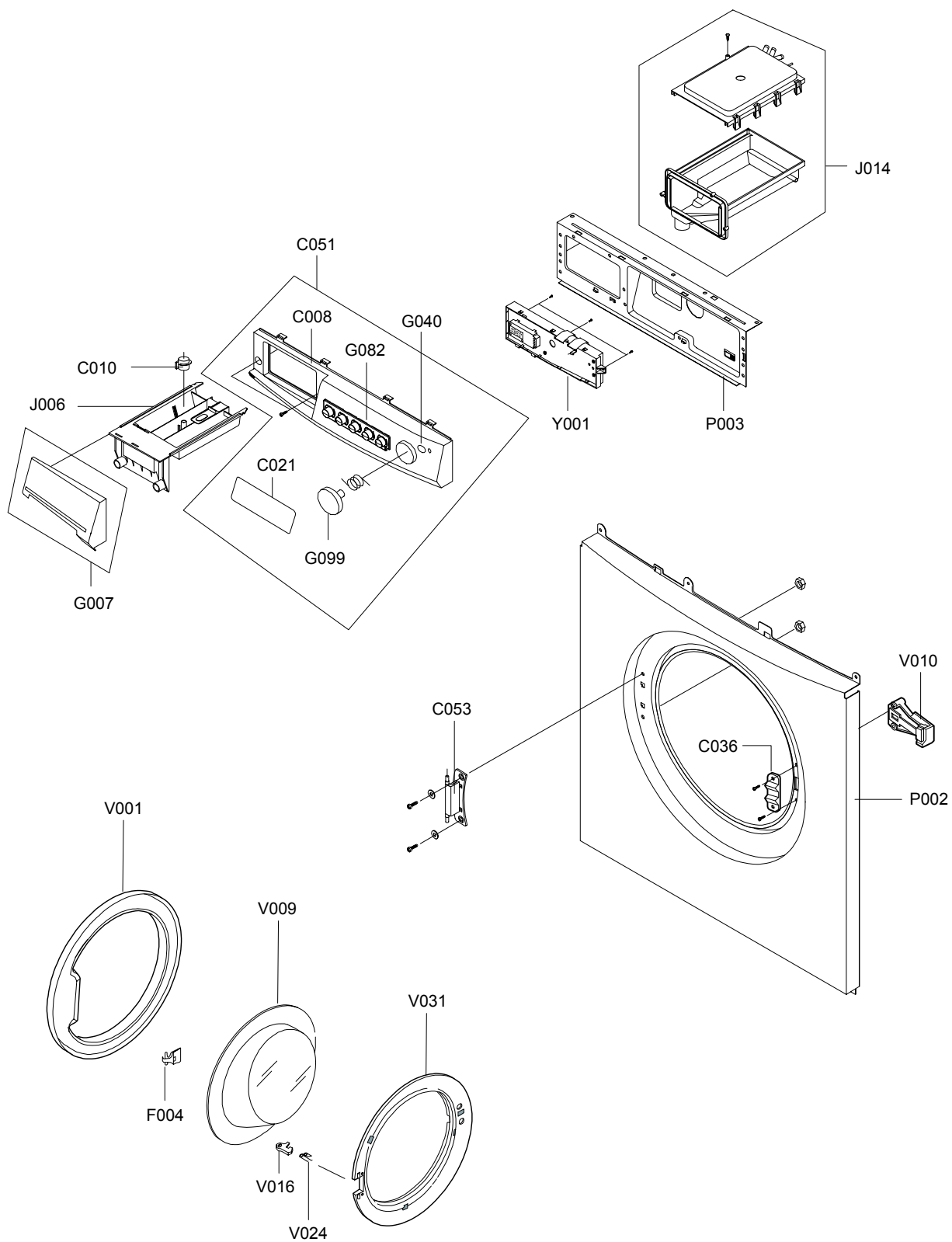


14. Tools for Disassembly and Assembly

NO.	TOOL		
1	Box driver	10mm 13mm 17mm 19mm	Heater (1) Motor (1), Balance (5) 2 holes of each left and right of the shock absorber 1 Pulley hole
2	Double-ended spanner	10, 13 17,19mm	Replaceable for the box driver. Since the bolt runs idle when the box driver is used, use the box driver 17mm.
3	Vice pliers		Tool to protect the idle and abrasion of the bolt for the box driver.
4	Other(Driver, Nipper, Long nose)		General tools for the after service.
5	JIG for the Tub		1 (Disassemble and Assemble)



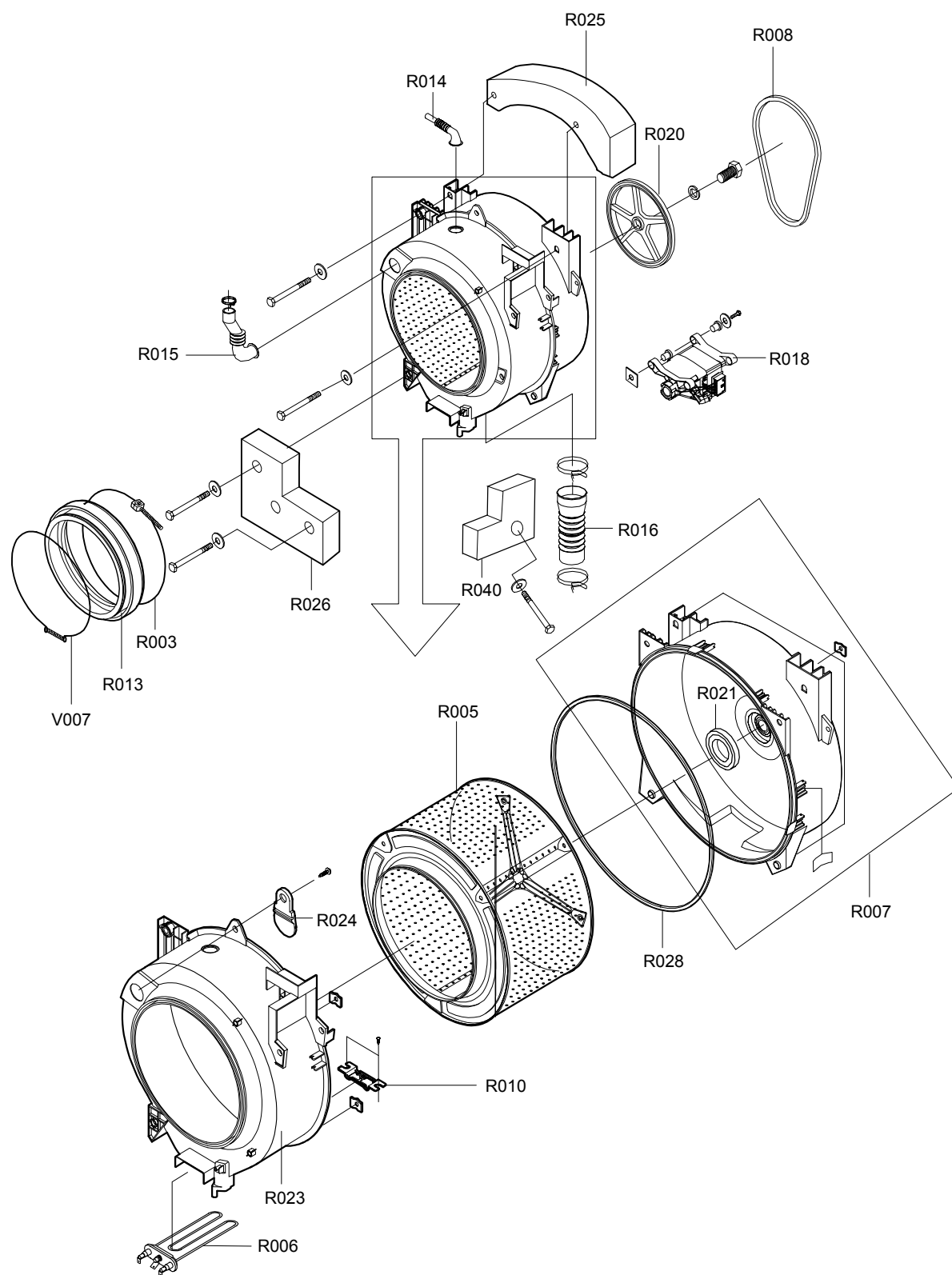
15. TOP(FRONT) - Exploded View



15. TOP Parts List

NO.	CODE NO.	DESCRIPTION;SPECIFICATION	QTY	REMARK
C008	DC64-00814E	PANEL-CONTROL;F843GW/YLP,ABS,-,-,-,WHT	1	
C010	DC61-10316B	CAP-RINSE;SEW-740DR,PP(TB-52),-,-,-,WHT,	1	
C021	DC64-00864B	INLAY-PANEL;R(P/F/S)843,PC,T0.5,-,-,-,WHT,	1	
C036	DC63-00450A	COVER-FRONT;S821,PP,T1.8,-,-,-,WHT,GUI	1	
C051	DC97-07427E	ASSY-PANEL CONTROL;MID-PJT/F843,WHT/RUSS	1	
C053	DC61-00889A	HINGE-DOOR;HAUZEN(DOM),ZNDC,-,-,-,-,18	1	
F004	DC64-00646A	HANDLE-DOOR;SD455-PJT,POM,-,-,-,WHT,RO	1	
G007	DC97-05469Y	ASSY-PANEL FRONT;MID-PJT/R(F/S),WHT/RUSS	1	
G040	DC64-00812A	BUTTON-PUSH(P);P/R/F/SLIM,ABS,-,-,SNOW-W	1	
G082	DC64-00813A	BUTTON-PUSH(F);P/R/F/SLIM,ABS,-,-,SNOW-W	1	
G099	DC64-00811A	BUTTON-PUSH(S);P/R/F/SLIM,ABS,-,-,SNOW-W	1	
J006	DC61-00366A	BODY-DRAWER;SL-600,TB-53,-,-,-,-,-	1	
J014	DC97-06572B	ASSY-HOUSING DRAWER;F-PJT,2WAY/COLD/VALV	1	
J014	DC97-02132C	ASSY-HOUSING DRAWER;S1093~S6093/2-WAY,SL	1	
P002	DC97-00702A	ASSY-FRAME FRONT;P6091,ROUND-TYPE	1	
P003	DC97-00417A	ASSY-FRAME PLATE(U);SWF-P12,FRAME-PLATE(1	
V001	DC63-00391A	COVER-DOOR;HAUZEN(DOM),ABS,-,-,-,-,WHT	1	
V009	DC61-00013A	DOOR-GLASS;GLASS,NTR,SWF-P12	1	
V010	DC64-00653A	DOOR-LOCK S/W;DA,PA6-G,-,H82,W50,-,BLK,2	1	
V016	DC66-00358A	LEVER-DOOR;SEW-HW105,ZNDC,-,-,-,-,CR-COA	1	
V024	DC61-00890A	SPRING-HANDLE;HAUZEN(DOM),STS304,CD1.0,-	1	
V031	DC61-00888A	HOLDER-GLASS;HAUZEN,ABS,-,-,-,WHT,AUTO+M	1	
Y001	MFS-F843-00	ASSY PCB PARTS;F843 40CM 4.5KG 800RPM	1	

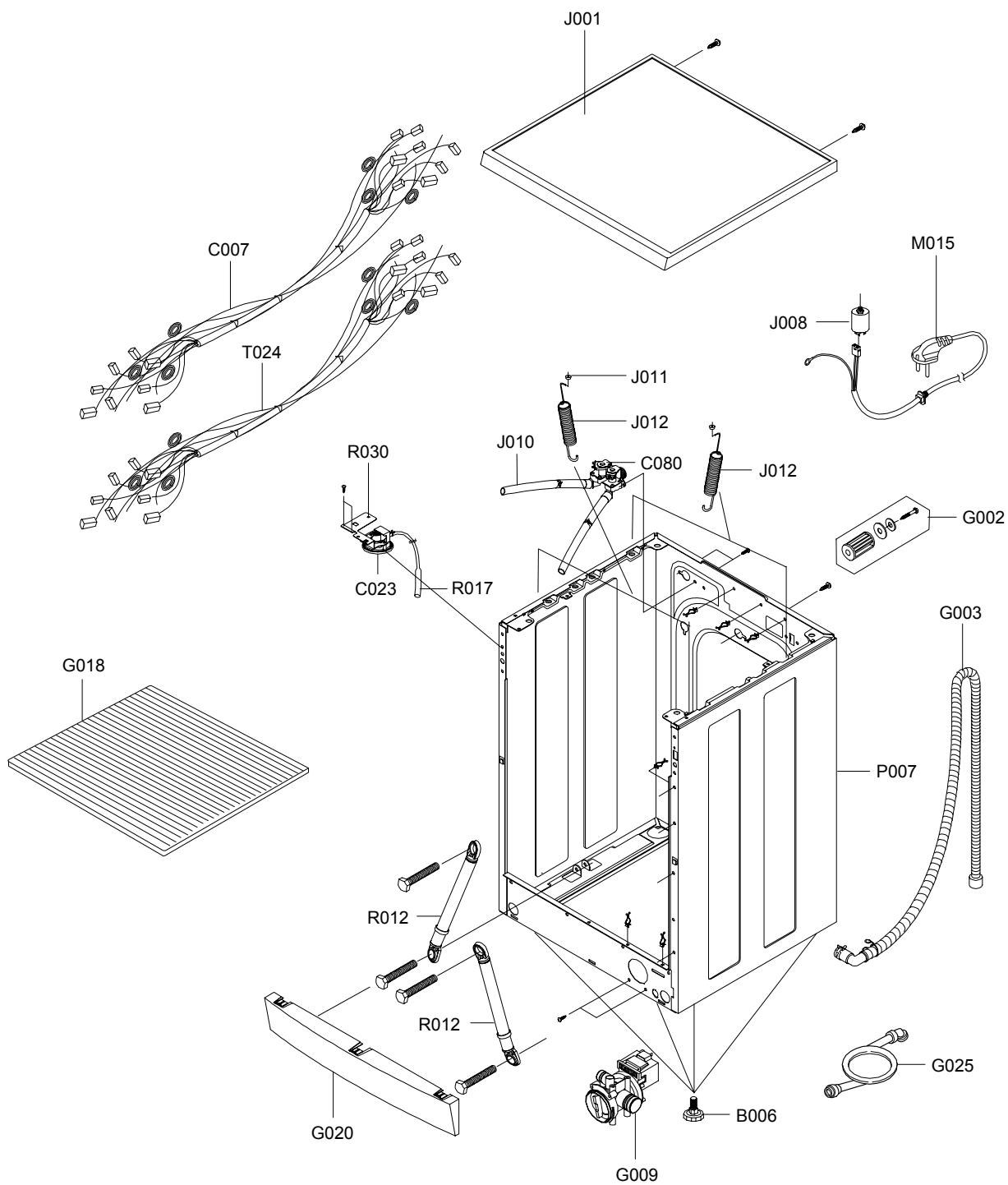
15. TUB - Exploded View



15. TUB Parts List

NO.	CODE NO.	DESCRIPTION;SPECIFICATION	QTY	REMARK
R003	DC91-12077A	ASSY-CLAMP DIAPHGRAM;SWF-P12,TUB	1	DIAPHRAGM
R005	DC97-01463J	ASSY-DRUM;F-PJT/SD-PJT/LIFTER,STS430/FIX	1	
R006	DC47-00006B	HEATER;KAWAI,P-SLIM MODEL,SUS316L,-,-,23	1	
R007	DC97-00214K	ASSY-TUB BACK;SWF-P8/P6091,LOW-RPM/NO.3	1	
R010	DC61-00856A	BRACKET-HEATER;SB-PJT,STS430,-,-,-,-	1	
R013	DC64-00374A	DOOR-DIAPHRAGM;F1225J,EPDM,-,-,-,-,GRY,-	1	
R014	DC62-10303A	HOSE-AIR;-,-,EPDM,ID24,-,-,L130,BLK,SWF-P1	1	TUB-FRONT
R014	DC62-10272D	HOSE-AIR;S621,PVC,ID4.5,-,-,L520,NTR,-	1	HOSE-PRESSURE
R015	DC62-10305A	HOSE-DRAWER TUB;-,-,EPDM,ID35,-,-,L158,BLK	1	
R018	DC31-00002E	MOTOR-DRUM;HXGN2I.02,SFW-P8,-,50Hz,-,-,L	1	
R020	DC66-00060A	PULLEY;FRPP,-,D297,SWF-PV2,ID12.5	1	
R021	DC62-00007A	SEAL-OIL;-,-,NBR(SD25),BLK,-,-,-,P6091/NBU	1	
R023	DC97-02138B	ASSY-TUB FRONT;F1215J,F-MODEL/TUB	1	
R024	DC62-20311A	VANE-CHECK;SWF-P12,EPDM,-,-,BLK,-,	1	
R025	DC67-00038A	WEIGHT-BALANCER;F-PJT(40CM),CONCREET,-,-	1	
R026	DC67-00042B	WEIGHT-BALANCER;F1215,GC-150(CHINA),-,-,	1	
R028	DC62-40183A	PACKING-TUB;SWF-P12,EPDM,-,-,-,-,BLK,-	1	TUB-BACK
R040	DC67-00050B	WEIGHT-BALANCER;F-1215,GC-150,-,-,-,-,F-	1	
V007	DC91-12078A	ASSY-WIRE DIAPHRAGM;SWF-P12,FRAME-FRONT	1	DIAPHRAGM

15. CASE - Exploded View



15. CASE Parts List

NO.	CODE NO.	DESCRIPTION;SPECIFICATION	QTY	REMARK
B006	DC97-02079C	ASSY-LEG;SB-PJT,SLIM/25MM/CHINA	4	
C007	DC96-00625A	ASSY-M.WIRE HARNESS;SD405,ROLD-DOOR	1	
C023	DC32-30006P	SENSOR PRESSURE;DN-S14(P1291),TERMINAL-T	1	
C080	DC62-00024F	VALVE-WATER;B1215J,NYLON66/250TRMN,-,-,N	1	
G002	DC97-02106A	ASSY-FIXER TUB;S1005J,SLIM-PJT	5	
G003	DC97-00139E	ASSY-HOSE DRAIN(O);SB-PJT,PP/L1770/CHINA	1	PUMP-MOTOR
G009	DC96-00149A	ASSY-PUMP DRAIN;P8091/P6091,220~240V/50H	1	
G018	DC64-00434A	SHUTTER;F1215J/F-PJT,PP,-,-,-,WHT,-	1	
G020	DC61-10672A	COVER-FRONT(L);SWF-P12,PP(BJ-730),-,-,-,	1	
G025	DC62-10289B	HOSE-WATER(C);WIP4013SRW,PVC+NYLON,ID10.	1	
J001	DC97-00851T	ASSY-COVER TOP;F-PJT,WOOD/MDF/SLIM 40CM	1	
J008	DC29-00006B	FILTER-EMI;CDFC-2712R,SLIM,250V,12A,PI38	1	
J010	DC67-00051A	HOSE-DRAWER;S1093~S6093,EPDM,-,-,-,-,BLK	0.4	
J011	DC61-60180A	SLEEVE-PLUG;NYLON#6,SEW-720DR,-,-,-,NTR	4	SPRING
J012	DC61-00708A	SPRING-HANGER;F-PJT,HSWR,CD2.8,-,-,L170,	2	
J012	DC61-00708B	SPRING-HANGER;F-PJT,HSWR,CD2.8,-,-,L181,	2	
M015	DC96-00146A	ASSY POWER CORD;UCP2,-,250V/16A,-,-,-,-,	1	FRAME
P007	DC99-00298A	ASSY-PAINT FRAME;F813J,COLD/F-MODEL	1	
R012	DC66-00320A	DAMPER-SHOCK;SB-PJT,ABS,-,-,-,-,WHT,AKS-	2	
R017	DC67-00107A	HOSE-PRESSURE;S821,PE-BLOW,ID13.2,OD6.2,	1	TUB-FRONT
R030	DC61-40345A	BRACKET-PRESSURE;GI or GA,SWK-P12,T1.0,-	1	
T024	DC96-00626A	ASSY-WIRE HARNESS;SD405,SUB(HIGH)	1	

Screw/Bolt List

CODE NO.	DESCRIPTION:SPECIFICATION	QTY	REMARK
DC97-02412A	ASSY-BOLT;SWF-P12,MOTOR, M8*L62	3	MOTOR,WEIGHT BALANCE(R),WEIGHT-BALANCER(L)
6011-001421	BOLT-FLANGE;M7,L61(29.4),ZPC(YEL),SWRCH1	5	
6011-001421	BOLT-FLANGE;M7,L61(29.4),ZPC(YEL),SWRCH1	1	WEIGHT(L)
6011-001492	BOLT-FLANGE;M8,L25,PASS,STS304,NYLOCK,P1	3	
6011-001452	BOLT-HEX;M10,L20,ZPC(YEL),SWCH10AK,ASSY(1	PULLEY
DC60-40144A	BOLT-HEX;M10,L41,ZPC2(YEL),SM10C/DAMPER	2	DAMPER+FRAME
DC60-40005A	BOLT-HEX;M4,L60,ZPC2(YEL),SS41C,-,-,-,-	1	
6011-001447	BOLT-HEX;M8,L123(25),ZPC(YEL),SWRCH18A,W	1	WEIGHT(U)
6011-001448	BOLT-HEX;M8,L170(25),ZPC(YEL),SWRCH18A,W	1	WEIGHT(U)
DC60-40141A	BOLT-HEX;SM10C/DAMPER,HEX,M8,L66,-,ZPC2(2	DAMPER+TUB
DC60-40146A	BOLT-SPANER;-,-,OD36,T2.5,L52,FE,FZY,-,P	1	ACCESSORY
DC61-00201A	BRACKET-NUT;SBHG-R,P1291,T3,-,-,-,NO-PAI	1	MOTOR
DC61-40348B	BRACKET-NUT;SBHG-R,P1291,T3,-,-,-,NO-PAI	2	
DC61-00201A	BRACKET-NUT;SBHG-R,P1291,T3,-,-,-,NO-PAI	1	
DC61-40348B	BRACKET-NUT;SBHG-R,P1291,T3,-,-,-,NO-PAI	2	
DC60-50010A	NUT-DIAPHRAGM;EGI,M4,-,-,2.5TX20X8	1	
DC60-50010B	NUT-DIAPHRAGM;EGI,M4.2,-,-,2.5TX20X8	1	
DD60-50018A	NUT-FLANGE;-,-,M5XP0.8,FZY,MSWR10,-	2	HINGE+FRAME
DC60-50148B	NUT-HEX;SM20C(NYLON),M12,-,-,ZPC3(YEL),-	1	PULLEY
6001-001773	SCREW-MACHINE;TH,+,M5,L12,	2	HINGE+FRAME
6009-001343	SCREW-SPECIAL;PH,TORX,,M4,L10,PASS	1	P/CORD
6009-001342	SCREW-SPECIAL;TH,+,M5,L11,ZPC(YEL)	2	FRAME(TOP)
6002-000525	SCREW-TAPPING;FH,+,1,M4,L12,PASS,STS304	1	C-PANEL+FRAME
6002-000630	SCREW-TAPPING;PH,+,2S,M3,L8,ZPC(YEL),SWR	2	BD1,TRIAC1
6002-000630	SCREW-TAPPING;PH,+,2S,M3,L8,ZPC(YEL),SWR	2	B/K+PRE-S/W
6002-000554	SCREW-TAPPING;PH,+,2S,M4,L12,ZPC(YEL),SW	3	PCB+C-PANEL
6002-000554	SCREW-TAPPING;PH,+,2S,M4,L12,ZPC(YEL),SW	1	HOUSING-DRAWER
6002-001327	SCREW-TAPPING;PWH,+,1,M4,L12,NI PLT	2	SHUTTER
6002-001327	SCREW-TAPPING;PWH,+,1,M4,L12,NI PLT	2	C/TOP+FRAME
6002-000470	SCREW-TAPPING;TH,+,1,M4,L10,ZPC,SCRCH18A	2	B/K-C.T
6002-000471	SCREW-TAPPING;TH,+,1,M4,L12,PASS,STS304,	1	VANE-CHECK
6002-000213	SCREW-TAPPING;TH,+,1,M4,L12,ZPC(YEL),SWR	1	CLAMP-HOSE+FRAME
6002-000213	SCREW-TAPPING;TH,+,1,M4,L12,ZPC(YEL),SWR	1	
6002-001006	SCREW-TAPPING;TH,+,2S,M4,L12,-,STS410	2	DOOR-S/W
6002-001006	SCREW-TAPPING;TH,+,2S,M4,L12,-,STS410	11	
6002-001006	SCREW-TAPPING;TH,+,2S,M4,L12,-,STS410	2	PUMP+FRAME
6002-000444	SCREW-TAPPING;TH,+,2S,M4,L14,NTR,STS304	2	B/K-HEATER
6002-000445	SCREW-TAPPING;TH,+,2S,M4,L18,NTR,STS304	2	PANEL+FRM+HOUSING-D
6002-000239	SCREW-TAPPING;TH,+,2S,M4,L8,ZPC(YEL),SM2	11	FRAME+FRAME-FRONT,FRAME+PL ATE-UPPER
6002-000239	SCREW-TAPPING;TH,+,2S,M4,L8,ZPC(YEL),SM2	2	MAIN PCB1,MAIN PCB2
6006-001170	SCREW-TAPPING;WS,TH,+,M4,L10,ZPC(YEL)	2	E/W(SUB)+FRAME(F),FILTER-EMI
6006-001170	SCREW-TAPPING;WS,TH,+,M4,L10,ZPC(YEL)	2	B/K-PRESSURE+FRAME,P/CORD(E/ W)
6006-001170	SCREW-TAPPING;WS,TH,+,M4,L10,ZPC(YEL)	1	
6003-000226	SCREW-TAPTITE;TH,+,S,M4,L8,ZPC(YEL),SWRC	2	W/V+FRAME
DC60-60040A	WASHER-NYLON;-,-,ID10.5,OD32,T2,-,PBSP-1/2	5	FIXER
DC60-60044A	WASHER-PLAIN;-,-,ID10.5,OD30,T3,-,STS304	2	DAMPER+TUB
DC60-60044B	WASHER-PLAIN;SBC,ID8.4,OD30,T3,-,-,-	5	FIXER



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1. Specifications

TYPE	FRONT LOADING TYPE			
DIMENSION	W 598mm X D 404mm X H 844mm			
WATER PRESSURE	50 kPa ~ 800 kPa			
WEIGHT	65 kg			
WASH and SPIN CAPACITY	4.5 kg (DRY LAUNDRY)			
POWER CONSUMPTION	WASHING		220 V	70 W
			240 V	70 W
	WASHING and HEATING		220 V	1800 W
			240 V	2100 W
	SPIN	MODEL	F843	
		230 V	220W	
	PUMPING		34 W	
WATER CONSUMPTION	43 ℓ (STANDARD COURSE)			
SPIN REVOLUTION	MODEL		F843	
	rpm		800	

2. Safety Devices

※ We adapt 5 safety devices for users to use this wash machine safely.

1) Balancing device (ASSY-Main PCB)

→ When the laundry is out of balance, to prevent the noises and vibrations, the unbalance detecting sensor helps the laundry laid even and continue the dehydrating process.

2) Anti-over water supply device

→ Because water supply valve is broken, once water is supplied to the 2/3 level of the door, the water supplied is drained automatically, Over -flow error (E3) is displayed on the panel

3) Temperature-regulating device(thermistor)

→ To prevent over-heating over the temperature setted up, THERMISTOR senses the temperature of the machine continuously and helps the wash machine to work at the temperature given by users.

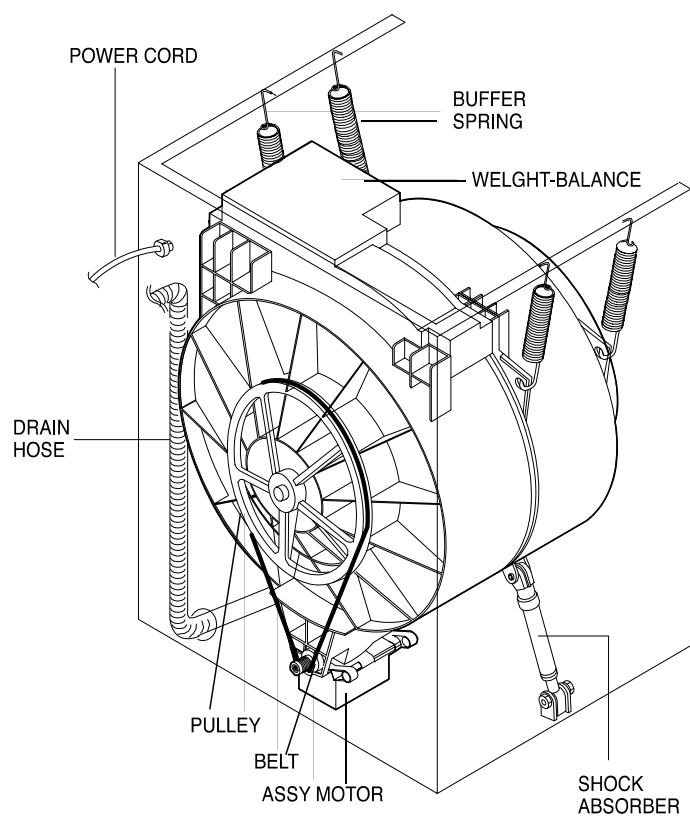
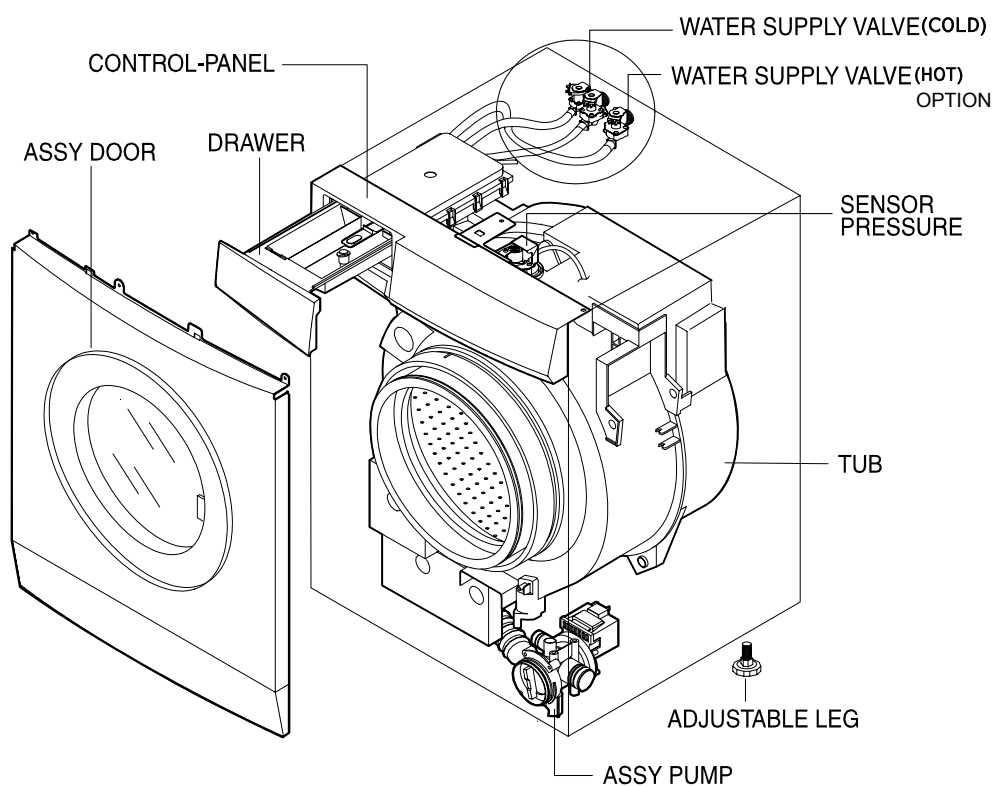
4) Overheating- controlling system

→ Under the circumstances of THERMISTOR inferiority or abnormal condition, if wash-heater is overheated, automatically, assy -thermal fuse cuts off the power supply to protect the machine to keep it safe.

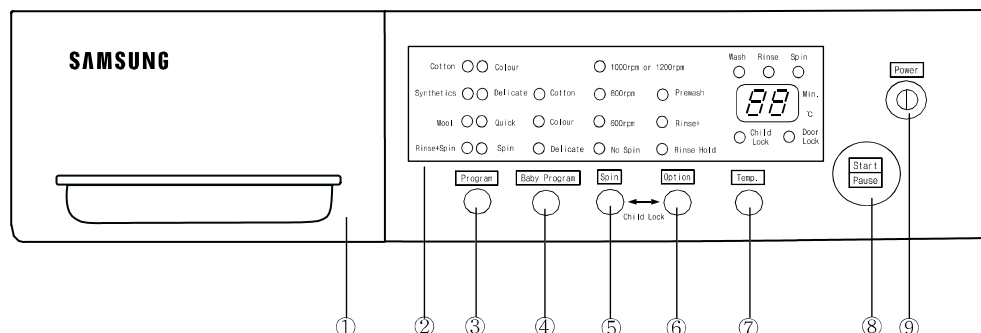
5) Delicate clothing safeguard function(ASSY-Main PCB)

→ To protect the clothings which is weak to high temperature, the wash machine senses the temperature inside the washing tub. if the temperature rises over 50℃ wool washing course and Delicate washing course display abnormal water temperature on the panel , after draining the water.

3. Overview of the Washing Machine



4. Overview of the control panel



1. Detergent dispenser

2. Display panel

Displays wash cycle and error messages.

During execution of the program, the program indicator blinks.

3. Program Select button

Press the button repeatedly to select one of the six available wash program.

{Cotton → Colour → Synthetics → Delicates → Wool → Quick → Rinse+Spin → Spin}.

4. Baby program button

Press the button to select one of the three available Baby programs.

Cotton → Colour → Delicate

5. Spin selection button

Press the button repeatedly to cycle through the available spin speed options.

F843	no spin, 600, 800 rpm
------	-----------------------

When pressing this button during operation, you can see the selected spin speed in the display panel.

6. Option button

Press the button repeatedly to cycle through the available partial wash options

Prewash → Rinse* → Rinse Hold → Prewash + Rinse* → Prewash + Rinse Hold → Rinse* + Rinse Hold → Prewash + Rinse* + Rinse Hold → Cancel

Note : Prewash is only available when washing cotton, synthetic or delicate.

7. Temperature selection button

Press the button repeatedly to cycle through the available water temperature options (cold, 40 C, 60 C and 95 C).

When pressing this button during washing, you can see the selected temperature in the display panel.

8. Start/Pause button

Press to pause and restart programs.

9. ⏻ (On/Off) button

Press once to turn the washing machine on, press again to turn the washing machine off.

If the washing machine power is left on for longer than 10 minutes without any buttons being touched, the power automatically turns off.

What is the Child Lock function?

- If you press the "Child Lock" button (Spin+Option button) longer than 2 sec during operation, this function is selected.

- If once this function is selected, no change can be done until the end of laundry.

- Press the "Child Lock" button (Spin+Option button) longer than 2 sec to cancel the function.

5. Main function

1) Auto power S/W off function

- After power on, the auto power S/W off function automatically switches power off for you if you do not press selection button for 10 minutes
- After selecting the function, the auto power S/W off function automatically switches power off for you if you do not press start/pause button for 10 minutes
- until 5 minutes past, After finishing the last function, the auto power S/W off function automatically switches power off for you if you do not re-select the course button or manual button

2) Door open function

- If door is open during the operating, all operating is halted, and door error message will be displayed (2-digit panel displays "Ed" 4-digit panel displays "door") and error melody will coming out
- Door open error can be cleared by closing the door. the operating keeps going on

3) Rinse hold function

- If rinse hold function selected, the operating is finished , the machine do not drain the water after last rinse

4) No spin function

- If no spin function selected, the operating is finished after last rinse

5) Drain function

- Drain function is over, after pumping out the water for 2 minutes , without motor rotating

6) Pre-washing function

- Pre-washing function can be selected ,when you choice the following mode; cotton, coloreds, sythetics, delicates, baby cotton
- Water level/reverse time is the same with the selected course
- Pre-washing takes about 15 minutes

7) Rinse+ function

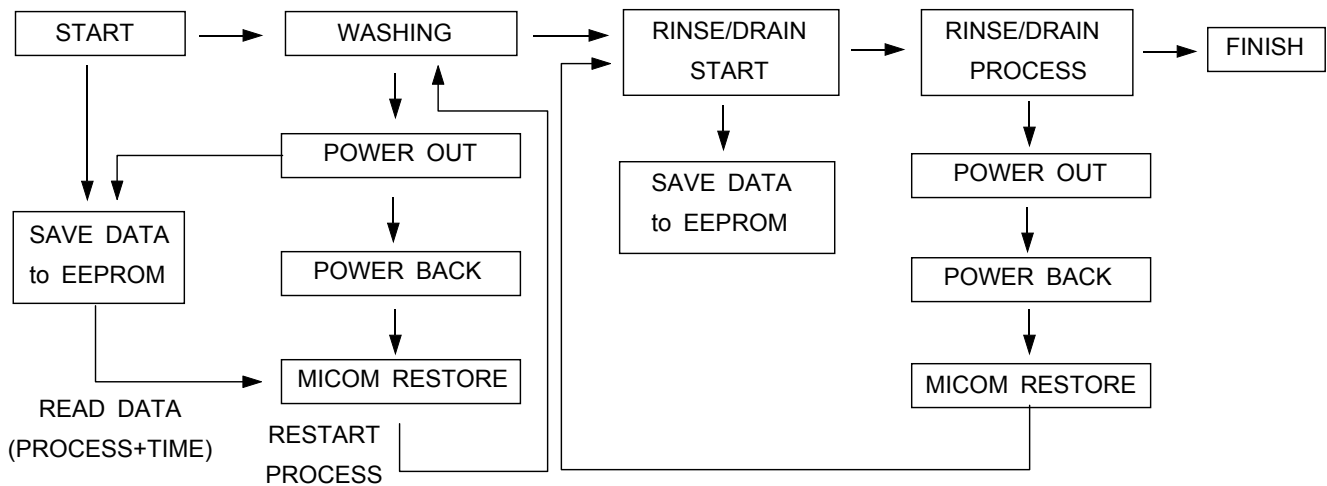
- This function practises rinse process once more

5. Main function

8) Power-out compensation function

- If power is out on selected process, the process before power out is stored to EEPROM, once power is back the process before power out continues.
- When power is back, washing process starts from the process at the point of the power out, rinse/drain process starts from the initial process.

POWER-OUT COMPENSATION FUNCTION PROCESS



9) Water heater Error function

- ① This function starts working, when the heater works abnormally.
(this function begins sensing the heater 2 minutes later, after the heater operating)
- ② The value of the initial thermistor(A1) is compared with that of the thermistor(A2) in 2 minutes ($Y=A2-A1$)
- For 10 minute the variance of temperature(Y) is less than 2°C "E5" message is displayed on the panel.
- ③ The value of the initial thermistor(A1) is compared with that of the thermistor(A2) in 11 minutes ($Y=A2-A1$)
- For 1 minute the variance of temperature(Y) increases more than 7°C (0.3V) "E6" message is displayed on the panel.
- ④ At this time heater, Error "E5 (heater do not work), E6(overheated)" is displayed and all working process off
- ⑤ The heater operating continues during heating hours, if washing hour is left over, the residual washing process keeps going without heating.

5. Main function

10) Fuzzy washing function (weight-sensing)

After finishing initial water supply, when the fall of the water level needs supplementary water supply, Sensing function perceives the weight with the supplementary water supply numbers and starts to work. Under the course of Cotton, or Coloureds, if the supplementary water supply numbers become 3 - 4 times the function is going at default condition (high water level), if 1-2 below that is going at middle level, if 0 below low water level, heating hours and rinse hours depend on the above data.

ECO PRE mode is selected, the process going on at default condition.

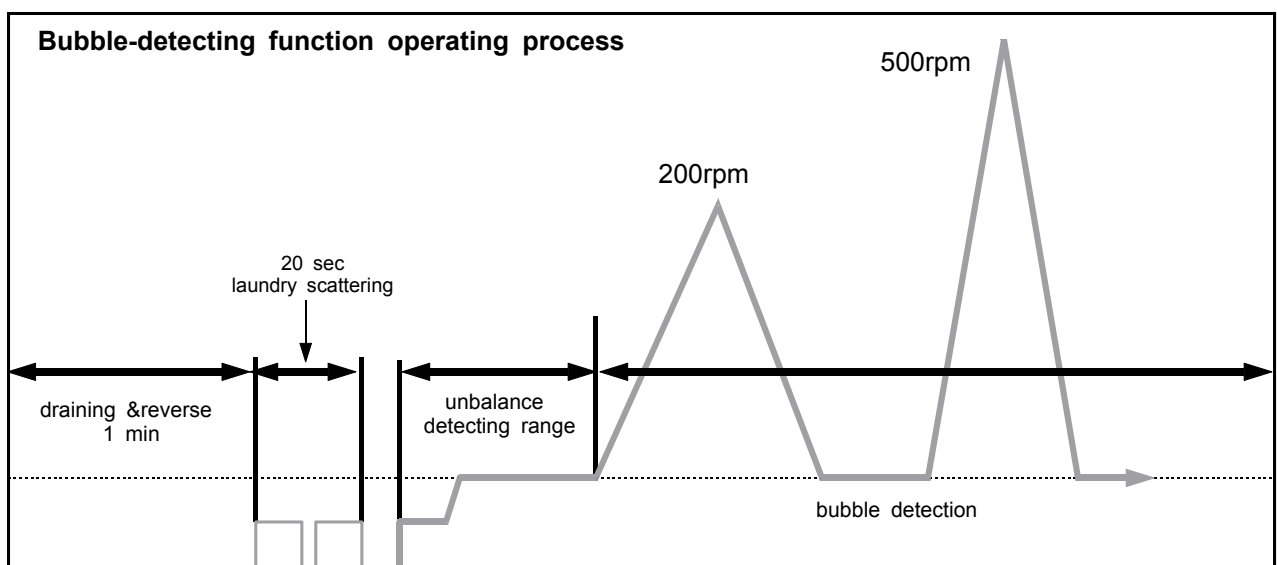
	Washing hours		Rinse water level
	Cotton	Coloureds	
High	Default	Default	Default
Middle	Default-12 min	Default-7min	23.30KHZ
Low	Default-25 min	Default-15min	23.70KHZ

※After sensing weight, above hours is decreased from above default hours

11) Bubble -detecting function

At the each condition of washing&dehydrating , rinse&dehydrating , hydrating, bubble -detecting function works, this function works 5times normally, if the function detects bubbles at 6 times , the bubble-detecting function stops and go on to the next process.

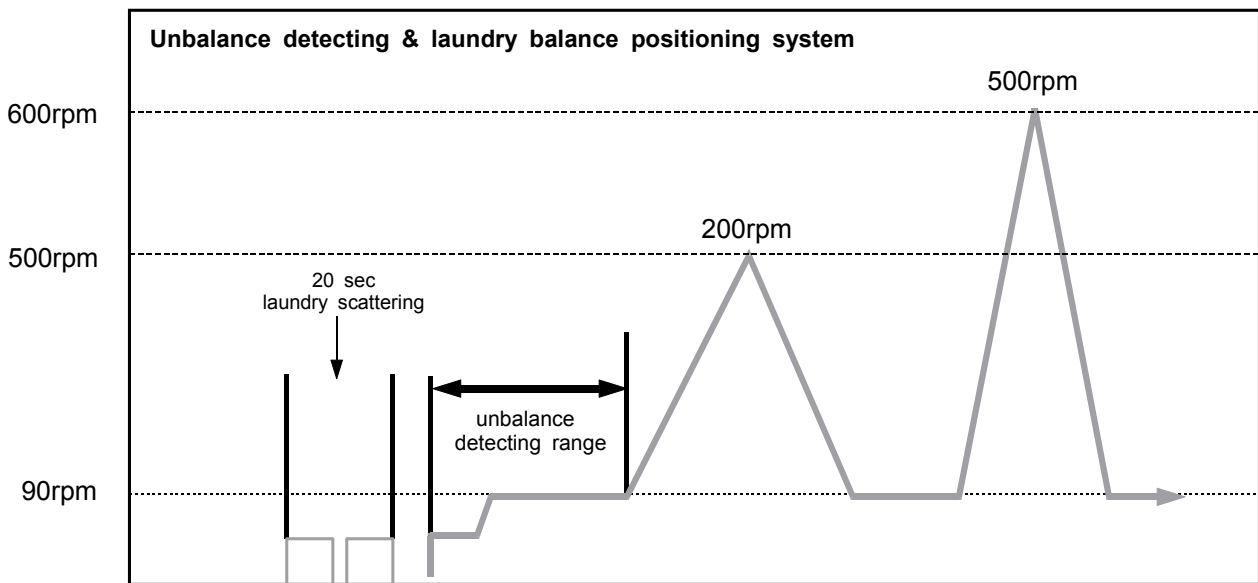
- The bubble-detecting function during washing & dehydrating to rinse & dehydrating
after 2 times instant dehydrating and before main dehydrating, if the water level is under 25.45KHZ, Bubble
→ Detecting function thinks there are bubbles and add the bubbles-removing rinse, needing hours are above hours and 8 min 40 sec.
- The bubble-detecting function during single hydrating process
after 2 times instant dehydrating and before main dehydrating , if the water level is 25.45KHZ below or during main dehydrating, water level data is 23.80KHZ below Bubble-detecting function thinks there are bubbles and add the bubbles-removing rinse 1 times, needing hours are above hours and 5 min 55 sec.



5. Main function

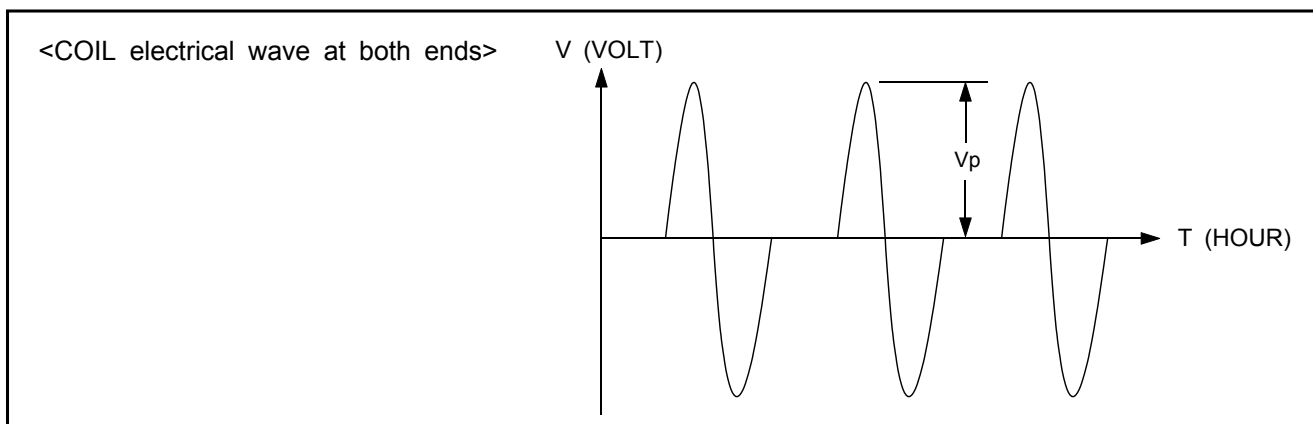
12) Unbalance detecting & laundry balance positioning system

- ① Just before the hydrating process and just after reversal rotation for balancing laundry position, this function is carried out
- ② The initial 6 sec is the period of reversal rotation for balancing laundry position , Drum rotates 50rpm for initial 6 sec
- ③ Next 10 sec, the rotation increases the speed from 50 rpm to 90 rpm slowly
- ④ During the next 18 sec, drum rotates at the speed of 90 rpm, the sensor decides the degree of laundry unbalance with TACHO data which is attached to motor
- ⑤ If the degree of unbalanced laundry is over 6 times to default value, laundry balancing system carries out feed back process 6 times



13) R.P.M control

The rotating motor enables the magnetics(i.e generator) to generate magnetic flux in proportion to r.p.m, magnetic flux induced by coil sensor in the opposite side produces the wave like the figure below to $d\Phi/dt$ and via rectangular wave generating circuit, the waves reaches MICOM and micom controls r.p.m with the pulse, count and cycle inputted by program.



6. Technical point

1) Motor on/off time at each course

unit:sec

Course	Washing				Rinse				Motor r.p.m
	Cw	Off	Ccw	Off	Cw	Off	Ccw	Off	
Cotton	13	3	13	3	10	5	10	5	50
Coloureds	11	4	11	4	10	5	10	5	50
Synthetics	7	8	7	8	7	8	7	8	40
Delicates	5	10	5	10	5	10	5	10	30
Wools	2	58	2	58	2	28	2	28	25
Quick	12	3	12	3	10	5	10	5	45

※ Motor on/off time is measured in cold water, in heating time motor on/off time is 10 sec on and 5sec off in the cotton course, beside cotton course, in the other course motor on/off time is the same with that of cold water use.

2) Final dehydrating r.p.m at each course

unit:rpm

Course \ Model	F843
Cotton	1000
Coloureds	1000
Synthetics	800
Delicates	600
Wools	400
Quick	1000

※ You can change the r.p.m to the above a table by use spin button under no spin situation.

3) The water supply control at each process cycle

Process cycle \ Model	F843
Washing	Cold water 5L/min / cold 10L/min
Rinse	Cold 10L/min
Final rinse	Cold water 5L/min + cold 10L/min